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THE C. & D. DIARY FOR 1909.

THIS popular Annual is in course of preparation, and promises to be one of the most useful of the series, the contents being novel, practical, and of exactly that useful nature which has made *The Chemists' and Druggists' Diary* first in esteem, as well as the first originated chemists' diary and desk-book. Firms who think of putting business announcements in the *Diary* will facilitate the work of production by intimating to the Publisher as early as possible the amount of space they desire to be allocated to them. The permanent character of the *Diary*, which is the desk companion of subscribers to THE CHEMIST AND DRUGGIST during the whole of the year, makes it a particularly effective medium for publicity, while the original, unique, and useful "Buyers' Guide" which it contains brings business daily to *Diary* advertisers. The year 1909 will be the forty-first for which the C. & D. has provided this work. Full particulars as regards terms can be obtained from the Publisher, 42 Cannon Street, London, E.C.

Summary.

The subjoined paragraphs give the gist of the more important matters in this issue, with the object of showing at a glance what has happened during the week. See also "Contents" in the first column.

FURTHER INFORMATION about the use of morphine in China is given on p. 518.

"ZAMBO" has been held in New Zealand to be an infringement of Zambuk (p. 508).

A POISON SCHEDULE drawn on the Hobbs principle has been recommended in New Zealand (p. 508).

CONTRACTS for chemicals and medical supplies are again becoming numerous, and are reported on p. 510.

SOUTH AFRICAN MOVEMENTS in pharmacy are exceptionally interesting, considering the state of trade there (p. 506).

ANOTHER INCIDENT in the Australian proprietary medicine agitation is reported from New South Wales on p. 508.

THE CONDITIONS under which imported patent medicines may be sold in France are the subject of an editorial article on p. 517.

"XRAYSER" does not consider that the British Pharmaceutical Conference meeting last week justified the purpose of the body (p. 515).

WE REPORT the White Cross Congress held at Geneva, where some interesting definitions of foods and allied products were formulated (p. 522).

THE REPORT of the Commission which took evidence in London regarding indecent advertisements and allied subjects is summarised on p. 517.

OVER FORTY-ONE MILLION packages of dutiable medicines were represented by the stamps sold in Great Britain during the last fiscal year (p. 517).

THE STANDARDS FOR ALKALOIDAL DRUGS suggested by Messrs. Umney and Bennett at the B.P.C., with their notes on the subject, are printed on p. 492.

THE B.P.C. PARTY which visited Braemar last week was photographed, and the picture is reproduced on p. 496, with notes and other photographs on the succeeding pages.

THE ANNUAL MEETING of the Federation of Pharmaceutical Associations is fully reported on pp. 499-500. It was well-attended and enthusiastic, but the financial condition of the body is bad.

THREE EXHIBITION REPORTS are included in this issue—viz., Rubber (p. 523), Grocers' (p. 524), and a further instalment of our notes on the French chemical exhibits at the White City (p. 525).

OUR SUMMER STUDIES for pharmacy students are completed in this issue, Mr. Walter S. Clark reporting finally on the arithmetic problems. Prizes are awarded to eighteen competitors (p. 501).

DR. F. B. POWER and Mr. H. Rogerson recommend that a soluble ferric arsenate should replace ferri arsenas B.P. Their reasons for this and the account of their investigation begins on p. 493.

MR. E. SHORTT, the Liberal candidate for Newcastle-on-Tyne, has been interviewed on behalf of local chemists, and expressed himself favourable to their case for legislation. Notes of the interview are on p. 498.

AMONG THE DEATHS recorded this week are those of Mr. W. H. Fassett (Fassett & Johnson, London), Mr. W. H. Jowett (Clayton & Jowett, Liverpool), and Mr. George Nicholson, formerly Curator of Kew Gardens (p. 512).

THE C. & D. REPRESENTATIVE at the meeting of the American Pharmaceutical Association held at Hot Springs, Ark., a fortnight ago, sends notes of the proceedings, including a portrait of the English President, Professor W. M. Searby. See p. 520.

THE POISONS AND PHARMACY BILL was discussed *in camera* at the Federation meeting in Aberdeen, and an official statement in regard to it appears on p. 500. The meeting recommended Associations to abstain from active opposition to the Bill until the Pharmaceutical Societies fail to get appropriate and desirable amendments. We discuss the position on p. 516.

CHANGES in chemicals and drugs are of minor occurrence this week. Foreign citric acid has hardened, and eucalyptus oil is a shade firmer. Palm and coconut oils, Persian galls, and serpentine are higher. Cascara sagrada, peppermint oil, and cream of tartar are easier. Shellac and turpentine are lower. The drug-auctions, at which heavy supplies were offered, are fully reported on p. 526.

British Pharmaceutical Conference Papers.

EXCEPTIONAL pressure on our space last week compelled us to follow the example of the Conference officers by presenting three of the most important communications in brief abstract only. These are now printed more fully, and it will be observed that they are records of researches which should be of special service in Pharmacopœia revision. Messrs. Umney and Bennett, in their paper, give a critical comparison of pharmacopœial standards for alkaloidal drugs and fluid extracts thereof, their observations on the quality of commercial supplies in London being of particular service, in so far as they present the actual conditions which manufacturers have to cope with, thus revealing the difficulties which are opposed to artificial or commercial standards based upon "the best" irrespective of supply and time. In their papers on arsenates of iron, Dr. F. B. Power and Mr. Rogerson dispose finally of the discredited preparation ferri arsenas B.P., and in dealing with soluble ferric arsenate they give a process by which this preparation of constant arsenic strength is prepared, the process being ready for pharmacopœial adoption. Besides the large amount of experimental work which these papers must have involved, they present a *résumé* of the historical aspects of the subject and references to the chemical literature which are likely to be of service. The discussions on these papers were meagre, and no fresh point was made. The observation by Mr. Finnemore that Rosenthaler's volumetric process, referred to in the third paper, was originated by Mr. W. A. H. Naylor is incorrect, as the two differ essentially.

Standards for Alkaloidal Drugs and their Fluid Extracts.

By J. C. UMNEY, F.C.S., and C. T. BENNETT, B.Sc., F.C.S.

The progress of the British Pharmacopœia revision makes it now necessary to give careful thought to the processes of assay of potent vegetable drugs and consideration to the desirable strength of galenicals prepared from them. Much information on such points being necessarily collected in the ordinary routine work of a wholesale druggist's laboratory, the authors have thought that a communication to the Conference on this important question would be of interest and also elicit opinions from other workers.

Taking the new United States Pharmacopœia as an up-to-date guide, the drugs official in the 1905 edition that have active-principle standards are noted in tabular form with the corresponding ones in the British Pharmacopœia, 1898, where they exist; and also the standards already suggested in "Standards for Medicines," published by the first-named author.

Many alterations have been made since the publication of the United States Pharmacopœia in the standards, arising from the working of the American National Food and Drugs Act of 1906, and from the considerable rejections of imported drugs by the Customs authorities. While appreciating the desirability of fixing standards for drugs as high as possible, it must be done with due regard to their natural variations from season to season. From this point of view in order to show the natural variation in crude drugs, and to indicate as far as possible suitable limits, the authors set out the percentage of alkaloids in different samples of the drugs examined over a period of three years, which show that the variations are considerable and in some cases of great importance. Practically no belladonna-root containing more than 0.3 per cent. of alkaloids was obtainable in commerce a few seasons ago, while at the present time the roots available in commerce contain as much as 0.55 per cent. The variation in coca is enormous, but a normal average may be taken as being 0.5 per cent. Cinchona-barks also vary greatly, and a large number were rejected as being outside the B.P. limits. Ipecacuanha is fairly uniform and generally yields from 2 to 2.5 per cent of alkaloid soluble in chloroform:

MINIMUM STANDARDS. Percentages of Active Principles.

Crude Drug	U.S.P. 1905, as Issued	U.S.P. as Corrected	B.P. 1898	Standards for Medicines, Umney	Assay of Crude Drugs Examined in the Laboratory of Wright, Layman & Umney, Ltd.
Aconite-root	0.50 aconitine	T.	—	—	Aconitine, 0.50, 0.51, 0.435, 0.48, 0.576, 0.384
Belladonna-root	0.50 alkaloids	0.45 alkaloids T.	—	0.40–0.50	Total alkaloids, 0.46, 0.545, 0.574, 0.54, 0.57, 0.10, 0.61, 0.40, 0.43, 0.344, 0.373, 0.46, 0.54, 0.34, 0.574, 0.54, 0.516, 0.459, 0.258, 0.31, 0.287
Belladonna-leaf	0.35 alkaloids	0.30 alkaloids T.	—	—	—
Cinchona...	5 total alkaloids 4.0 ether soluble alkaloids	W.	W. 5–6 total alkaloid of which half must be quinine and cinchonidine	—	Total alkaloids, 2.88, 7.17, 5.22, 5.0, 7.17, 6.57, 6.36, 5.88, 5.96, 4.62, 3.31, 4.76, 3.76, 2.46, 1.74, 3.75, 4.16, 4.72, 4.14, 4.50, 3.48, 1.61, 2.64
Coca-leaves	0.50 ether soluble alkaloids	T.	—	0.50	Ether Soluble alkaloids, 0.28, 0.48, 0.60, 0.727, 0.969, 0.69, 0.39, 0.435, 1.20, 0.78, 0.84, 0.69, 0.12, 1.33, 1.36, 1.42
Colchicum-seed ...	0.55 colchicine	0.45 colchicine W.	—	—	Colchicine, 0.60, 0.64
Colchicum-corn ...	0.35 colchicine	W.	—	—	—
Conium fruit.	0.50 coniine	W.	—	—	0.88, 0.98, 0.714, 0.92 as hydrochloride 0.68, 0.76, 0.55, 0.71 calculated as coniine
Guarana ...	3.50 alkaloids	W.	—	—	4.16, 3.56, 3.70, 4.0, 3.8, 4.2, 4.2, 4.2, 3.8
Hydrastis ..	2.50 hydrastine	W.	—	—	B.P. fluid extract gave 2.07 grams hydrastine per 100 c.c.
Hyoscyamus leaf	0.08 alkaloids	T.	—	0.08	0.085
Ipecac. root	2.0 alkaloids	1.75 ether soluble alkaloids T.	—	—	Alkaloids soluble in chloroform, 2.17, 2.24, 2.38, 2.09, 2.2, 1.95, 2.42, 2.18, 2.37, 2.67
Nuxvomica	1.25 strychnine	T.	—	2–2.5 total alkaloids	Strychnine, 0.85, 1.36, 0.95 Total alkaloids, 2.90, 2.16 Strychnine, 0.82, 0.70 Total alkaloids, 1.68, 1.88
Opium ...	9.0 crystallised morphine	W.	9.5–10.5 T. anhydrous morphine Not less than 7.5 for galenicals	12–14 for galenicals	Anhydrous morphine, Moist opium, 11.3, 11.4, 11.5, 10.9, 9.5, 10.4, 9.7, 12.8, 9.6, 9.1, 9.2, 9.8, 10.1, 11.0, 12.8, 11.0, 11.6 Dry powder (natural), 14.3, 14.6, 13.0, 15.3, 12.3, 14.1, 13.1, 13.5, 13.8, 12.1
Pilocarpus.	—	—	—	—	Alkaloids
Jaborandi B.P.	—	—	—	—	0.455, 0.06, 0.145
Microphyllus Selloanus	0.50 alkaloids	T.	—	—	0.60, 0.7
	—	—	—	—	0.185

Crude Drug	U.S.P. 1905, as Issued	U.S.P. as Corrected	B.P. 1898	Standards for Medicines, Umney	Assay of Crude Drugs Examined in the Laboratory of Wright, Layman & Umney, Ltd.
Pilocarpus. Racemosa	—	—	—	—	0.29
Scopola ...	0.50 alkaloids	T.	—	—	—
Stramonium	0.35 alkaloids	0.25 T.	—	0.40	—

T.=titrated. W.=weighed.

The next table includes the liquid extracts, with the standards in the new U.S.P., and the standards corrected since with the B.P. standards. While it is extremely doubtful that liquid extract of aconite will be included in the new British Pharmacopœia, there seems to be a demand for fluid extract of colchicum-seeds, of conium-fruit, and possibly of guarana, all of which are readily standardised. The standardisation of henbane does not appear to be of such great importance, as the drug does not depend alone for its valuable medicinal properties on the contained mydriatic alkaloids. It would be desirable to introduce a standardised preparation of pilocarpus—possibly of *Pilocarpus microphyllus*, as being a species of pilocarpus readily obtainable, containing a fair and constant proportion of alkaloids. The employment of acetic acid for extraction in the preparation of the standardised fluid extracts, as in the case of conium-fruit and nux vomica, is a decided improvement, and is worthy of more extended employment, being particularly valuable where a large proportion of the alkaloids present are in a combined state, as in nux vomica. With regard to scopola there does not seem any necessity for its introduction, as its properties are so similar to those of belladonna. Stramonium has been very little used in British pharmacy—possibly too little; but there does not seem to be any great reason for its introduction into the British Pharmacopœia.

Alkaloids, stated in grams per 100 c.c.

Fluid Extracts	U.S.P. 1905 Standard as Issued	U.S.P. Standard as Corrected	B.P. Standard, 1898
Aconite-root ...	0.40 aconitine	T.	Not official. T.
Belladonna-root	0.50	0.45. T.	0.75. W.
Cinchona ...	4.0 ether soluble alkaloids	W.	5.0 total alkaloids W.
Coca-leaf ...	0.50 ether soluble alkaloids	T.	Official, but not standardised
Colchicum-seeds	0.50 colchicine	0.40. W.	Not official
Conium fruit...	0.45 conine	W.	Not official
Guarana ...	3.50 alkaloids	W.	Not official
Hydrastis ...	2.00 hydrastine	T.	Official, but not standardised
Hyoscyamus...	0.075 alkaloids	T.	Not official
Ipecacuanha ...	1.75 ether soluble alkaloids	1.50. T.	2.0 to 2.25 alkaloids W.
Nux vomica ...	1.0 strychnine	T.	1.5 strychnine W.
Pilocarpus ...	0.40 alkaloids	T.	Ext. Jaborandi liq. Official, but not standardised
Scopola ...	0.50 alkaloids	T.	Not official
Stramonium-leaf	0.35 alkaloids	0.25. T.	Not official

T. = titrated. W. = weighed.

GENERAL REMARKS.

Aliquot-part methods are not to be recommended owing to the difficulty of obtaining an accurate proportion of the solvent, especially when it contains water and ether, as powdered drugs are apt to absorb the water. In the case of colchicum the solvent itself is not completely miscible.

Immiscible solvents, in shaking out, at least three successive quantities should be employed, since two washings do not extract all the alkaloid.

Ordinary filter-papers should not be used for small quantities of solvents, as loss is inevitable unless a small pressure filter be employed. A plug of cotton-wool is better, and is quite sufficient when the alkaloid is to be titrated.

Titration should be conducted with one-twentieth normal solutions of sulphuric acid and sodium hydroxide. Cochineal is the best indicator, which can be used almost universally, but it is not sensitive enough for one-fiftieth normal solutions.

SPECIAL REMARKS.

Aconite.—There is little difficulty with the separations, but it is better to filter the ether solutions through cotton-wool owing to slow filtration and imperfect washing of filter-paper. Titrate with N/20 solutions.

Belladonna.—Separations may be assisted by warming the separator in a jet of steam. The process is substantially the B.P. method, and has no special advantages.

Cinchona.—The aliquot-part method is objectionable, as the portion poured off actually contains more than half the ethereal layer. The separations are good and the process rapid. In the B.P. process the separations are more difficult, even when the separator is warmed. Ether-soluble alkaloids include quinine quinidine and cinchonidine (U.S.P.).

Coca.—The process works well, but three extractions should be made with both the ether and the acid liquid. Titrate with N/20 solutions.

Colchicum.—The aqueous solution of colchicine should be filtered through cotton-wool and washed once with 10 c.c. of petroleum ether to extract the last traces of fat. The alkaloid extracted by chloroform should be entirely soluble in water.

Conium.—This process is not at all satisfactory. The ammonium sulphate does not separate completely, and the neutralisation with sodium carbonate requires very great care. The process given in the 1901 "B.P.C. Formulary" is much more satisfactory.

Guarana.—The method is very good, the alkaloid being obtained in a high state of purity.

Hydrastis.—No difficulty is experienced in the separation. The aliquot-part method in the case of the fluid extract is objectionable, as the solvent is almost entirely water. The berberine is separated by precipitation with iodide of potassium. The drug itself is assayed by quite a different process, being extracted by ether in presence of ammonia-water. It seems desirable that the same method should be used in both cases.

Hyoscyamus.—The process is the same as for belladonna, but owing to the smaller quantity of alkaloid 50 c.c. of the fluid extract is ordered to be used, and, owing to the large quantity of extractive, complete separations are impossible. It is better to use sand and to extract with chloroform, as in the case of pilocarpus.

Ipecacuanha.—This method is easier than the B.P. process, but gives considerably lower results by weighing and still lower by titration, since ether is the solvent, which, as shown by Bird, is unsuitable for ipecacuanha alkaloids. The ether residue is paler in colour and is more easily titrated, but chloroform undoubtedly takes out more alkaloid, the results being practically the same as the B.P. method, which is not the case even after three washings with ether.

Nux Vomica.—This process is a distinct improvement on that of the B.P., for the brucine is entirely destroyed by the nitric acid in ten minutes if the solution is heated to 50° C., as recommended by Farr and Wright. In the B.P. method the separation of brucine from strychnine is not complete, the strychnine extracted being never quite free from brucine, while a small proportion of the strychnine remains in the ferrocyanide solution.

Pilocarpus.—The process is fairly satisfactory, and is perhaps the best yet devised. Separations are a little difficult owing to mucilaginous matter. *Pilocarpus microphyllus* alone should be adopted in the next B.P. edition.

These notes are communicated with the object of eliciting opinions from other workers, to aid in the work of the revision of the British Pharmacopœia, one of the authors having the honour to be a member of the Reference Committee. Only the examination of many samples of drugs gives what is a really normal alkaloidal percentage, and only by the experiments of many workers can the best method of assay be determined and the proper process for the manufacture of a particular liquid extract.

The Characters of Official Iron Arsenate and the Preparation of a Soluble Ferric Arsenate.

By F. B. POWER, Ph.D., LL.D., and HAROLD ROGERSON.

(Abstract of two Contributions from the Wellcome Chemical Research Laboratories, London.)

The compound described under the title of ferri arsenas (iron arsenate) in the 1898 British Pharmacopœia is defined as "Ferrous arsenate, $\text{Fe}_3(\text{AsO}_4)_2 \cdot 6\text{H}_2\text{O}$, with ferric arsenate and some iron oxide." It is

recognised as a mixture, and, considering the method of preparation and the changes on keeping, it must necessarily show considerable variation in composition. The above definition leads one to assume that the iron is chiefly in the ferrous state, which is not the case, and that the contained ferrous arsenate is represented by the definite formula $\text{Fe}_3(\text{AsO}_4)_2 \cdot 6\text{H}_2\text{O}$.

As a test for the quality of iron arsenate the Pharmacopœia directs that, besides giving "no characteristic reaction with the tests for sulphates," it should contain an amount of ferrous salt to correspond with at least "nearly $12\frac{1}{2}$ per cent. of hydrous or 10 per cent. of anhydrous ferrous arsenate." Various commentators have stated that this requirement is unsatisfactory, inasmuch as the arsenic content is chiefly of value therapeutically, yet the ferrous iron alone is estimated (compare *C. & D.*, 1900, I., p. 884; "P.J.," 1898, 61, p. 530, and 1900, 65, p. 150; "Year-book," 1900, p. 334; and the "U.S. Dispensatory," 18th ed., p. 605).

Dr. Attfield's exposition of the official test ("Digest of Researches and Criticisms," 1900) does not appear to afford very convincing or logical evidence of its value, for a determination of the amount of ferrous iron alone can give no indication of the proportion of arsenic present in the compound; and in Attfield's "Manual of Chemistry," 17th ed., 1898, p. 778, this fact is recognised by the statement that "the compound is more nearly a ferric than a ferrous arsenate."

Iron arsenate appears to have been introduced as a medicinal agent as early as 1809. Pereira, in his "Elements of Materia Medica and Therapeutics" (4th ed., 1854, Vol. I., p. 856), states that arseniate of iron is "obtained by adding the arseniate of potash, soda, or of ammonia to a solution of protosulphate of iron," and notes, with the subjoined reference, Mr. Carmichael, "Essay on the Effects of Carbonate and other Preparations of Iron upon Cancer" (pp. 50, 66, 341, 343, et seq., 1809).

The "Pharmacopée Universelle," par A. J. L. Jourdan (Vol. I., p. 216, Paris, 1828) gives a formula for the preparation of "Pilules d'arséniate de fer," which appears to have been taken from F. S. Ratier's "Formulaire pratique des hôpitaux civils de Paris" (3rd ed., Paris, 1827). Each pill contained $\frac{1}{8}$ grain of iron arsenate. Dorvault, pharmacien, Paris, in "L'Officine" (1844, p. 154), prepares "Arséniate de Fer" as follows: "S'obtient en décomposant une solution de sulfate de fer par une autre d'arséniate de potasse; on recueille et on lave le précipité, qui est de l'arséniate de fer."

Iron arsenate was not included in the last editions of the London (1851), Edinburgh (1841), and Dublin (1850) Pharmacopœias, and its first official recognition appears to have been in the 1864 B.P. In subsequent revisions the subject has always been one of considerable perplexity, and the divergencies in the method of preparation and the requirements for the quantitative tests are quite remarkable.

Preparations known as iron arsenate are included in the Pharmacopœias of France, Italy, Spain, and Mexico, but the varying proportions of the salts used in their manufacture make the resulting products differ appreciably in composition.

The varying proportions employed are seen by the following table, the alkali arsenate for comparison being calculated to anhydrous sodium arsenate:

Comparison of Amount of Alkaline Arsenates used in the National Pharmacopœias

Pharmacopœia	$\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$	Na_2HASO_4
	Parts	Parts
British, 1898	10	7.6
French, 1895	10	29.8
Italian, 1892	10	6.6
Spanish, 1905	10	16.4
Mexican, 1884	10	8.6

The corresponding calculated amount of anhydrous sodium arsenate for the production of a normal ferrous arsenate is 4.5 parts, and for a salt of the composition

$\text{Fe}''\text{HASO}_4$, as in the French Pharmacopœia, theoretically 6.7 parts of anhydrous sodium arsenate would be required.

Small quantities were prepared, as nearly as possible in accordance with the directions of the respective Pharmacopœias (with the exception of the Mexican), dried uniformly at a temperature not exceeding 38°C ., and submitted to analysis. Two representative samples of the B.P. product, as supplied by English manufacturers, were also examined. The method of analysis employed was as follows:

1. *Estimation of the Ferrous Iron.*—About 1 gram of the salt was dissolved, with the aid of a gentle heat, in 20-per-cent. sulphuric acid, in a flask provided with a Bunsen valve, and after reduction the liquid was allowed to cool, then diluted with a little water, and titrated with a standard solution of potassium permanganate.

2. *Estimation of the total Iron and the Arsenic.*—About 0.5 gram of the salt was dissolved in 20 c.c. of 15-per-cent. hydrochloric acid and diluted with water to 100 c.c. It was then saturated with sulphur dioxide, and after removing the excess of sulphur dioxide by a gentle heat, the liquid, while still warm, was treated with hydrogen sulphide until the arsenic was completely precipitated. The arsenous sulphide was collected, washed with water containing a little hydrogen sulphide, and the filtrate and washings reserved. The dried arsenous sulphide was transferred to a flask, and oxidised with fuming nitric acid, and sulphide adhering to the filter being removed by a little strong solution of ammonia, evaporated to dryness, oxidised with nitric acid, and added to the main portion. The entire arsenical liquid was then evaporated, a little dilute sulphuric acid being added towards the end to aid the elimination of the nitric acid, and the arsenic acid converted into ammonio-magnesium arsenate in the usual manner. The latter compound, after drying at 100° to 105°C ., was weighed as $\text{Mg}(\text{NH}_4)\text{AsO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$, and from this the percentage of arsenic was calculated.

The reserved filtrate and washings were concentrated, a little nitric acid was added to completely oxidise the iron, the latter then precipitated by ammonia, and the precipitate, after being washed, dried, and ignited, weighed as ferric oxide, Fe_2O_3 .

The results afforded are tabulated below: *

Analyses of Arsenate of Iron.

Pharmacopœia	Ferrous Iron	Total Iron	Arsenic (As.)
	%	%	%
British, 1898	7.11	21.15	28.58
„ commercial	4.62	26.31	30.67
„ „ „ „ „ „ „ „	4.48	27.19	29.76
French, 1895 „ „ „	4.45	20.87	28.15
Italian, 1892 „ „ „	9.10	24.66	28.09
Spanish, 1905 „ „ „	6.38	22.14	29.70

The ferrous iron in the fresh B.P. preparation (7.11 per cent.) would correspond to 18.9 per cent. of anhydrous ferrous arsenate, which last would correspond to 6.36 per cent. of arsenic (As), whereas the total percentage of arsenic in the respective specimen was 28.58 per cent., thus showing that even a freshly-prepared arsenate of iron consists to a large extent of a ferric salt. Furthermore, a comparison of the relative percentages of ferrous iron and arsenic enumerated in the above table clearly demonstrates that the official test permits no deduction whatever as to the proportion of arsenic such a preparation may contain.

PREPARATION OF A SOLUBLE FERRIC ARSENATE.

Experiments were made some years ago for the production of a soluble ferric arsenate that would present decided advantages over the insoluble compounds at present officially recognised, by a method analogous to that employed for the preparation of soluble ferric phosphate—namely, by the combination, in suitable proportions, of ferric citrate and

* A number of analyses of official iron arsenate have been recorded by Nicholls, which show a high degree of variation in its composition. The method employed by him for the determination of the arsenic was different from that above described, but he gives no details respecting the determination of the iron (*C. & D.*, 1903, I., p. 243).

sodium arsenate.* Theoretically 100 parts of Na_2HAsO_4 and 131.7 parts of $\text{FeC}_6\text{H}_5\text{O}_7$ are required; but the scaling of the product is facilitated if one-tenth more than Soluble iron arsenate* (*Ferri Arsenas Solubilis*) has the calculated amount of ferric citrate is employed, which is practically 145 parts. It is important that anhydrous sodium arsenate be used on account of the variable amount of water contained in the crystallised salt. The method of procedure is briefly as follows:

To an amount of solution of ferric citrate corresponding to 145 parts of the anhydrous salt is added 100 parts of anhydrous sodium arsenate, and the mixture gently heated on a water-bath until the latter salt has become completely dissolved. The original brown colour of the liquid will then have changed to a bright green. The liquid is subsequently filtered, evaporated at a gentle heat to a syrupy consistence, and spread on plates of glass, so that, on drying, the salt may be obtained in the form of scales.

Soluble iron arsenate† (*Ferri Arsenas Solubilis*) has the following characters which serve for its identification:

Thin, bright green, transparent scales, which are readily and completely soluble in water, affording a bright-green solution; insoluble in alcohol. The aqueous solution of the salt has an acid reaction. On the addition of a solution of ammonia a brown coloration is produced, but no precipitate. With potassium ferro-cyanide it gives a blue coloration, which is rendered much deeper in colour, with the formation of a blue precipitate, on the addition of hydrochloric acid. If 0.5 gram of the salt be dissolved in 5 c.c. of hot water, and to the solution about 10 c.c. of a 5 per cent. solution of potassium hydroxide be added, a reddish brown precipitate will be produced. The filtrate from this precipitate, when acidified with hydrochloric acid, then about 5 c.c. of magnesia mixture added, and finally a slight excess of solution of ammonia, will yield a white, crystalline precipitate. This latter precipitate, when collected on a filter, and washed with a little water, affords in contact with a few drops of a solution of silver nitrate a chocolate-brown colour (identification of arsenic acid and distinction from soluble ferric phosphate). It should be protected from the light.

Quantitative Determination of the Arsenic and Iron.—

In view of the desirability of adopting some standard arsenic content for soluble iron arsenate, the percentage of arsenium was determined in a specimen of the salt prepared on a manufacturing scale. Different methods were employed to find the one best adapted for rapid work and of sufficient accuracy for technical requirements.

Method I. was practically the same as that already described for the official iron arsenate. About 1 gram of the salt was dissolved in 100 c.c. of water, acidified with hydrochloric acid, and then saturated with sulphur dioxide. After removing the excess of sulphur dioxide by heat, the arsenic was precipitated as sulphide, converted by means of fuming nitric acid into arsenic acid, finally precipitated as ammonio-magnesium arsenate, and, after drying at 100° to 105° C., weighed as $\text{Mg}(\text{NH}_4)\text{AsO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$.

In the filtrate and washings from the arsenous sulphide the iron may be estimated by concentrating the mixed liquids, oxidising with a little nitric acid, and precipitating first with sodium hydroxide, on account of the presence of the organic acid. The ferric hydroxide is then collected, washed, re-

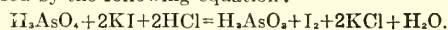
dissolved in hydrochloric acid, finally precipitated by ammonia, and, after ignition, weighed as Fe_2O_3 .

Method II.—About 1 gram of the salt, accurately weighed, was dissolved in 50 c.c. of water, the solution heated to boiling, and then added, with constant stirring, to 15 c.c. of a 10-per-cent. solution of sodium hydroxide. After digesting for half-an-hour on a water-bath, the precipitate was collected, washed, dissolved in hydrochloric acid, and the iron precipitated by ammonia. The resulting ferric hydroxide was washed, dried, and ignited.

The filtrate and washings from the first precipitation of the iron were concentrated, acidified with hydrochloric acid, then made slightly alkaline with ammonia, and the arsenic finally precipitated as ammonio-magnesium arsenate. This, after drying at 100° to 105° C., was weighed as $\text{Mg}(\text{NH}_4)\text{AsO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$.

If the initial step in the above method be reversed somewhat less accurate results are obtained, owing to the retention of some of the arsenic as a basic compound by the iron precipitate.

Method III.—Rosenthaler has recently shown ("Zeit. f. Chem.," 1906, 45, p. 596) that arsenic acid may be accurately estimated volumetrically by an iodometric method under well-defined conditions, and the method naturally permits of the indirect estimation of the iron in an analogous manner. In the case of arsenic acid the reaction is stated to be completely effected in the cold in ten to fifteen minutes, provided a large amount of free hydrochloric acid is present, and may be expressed by the following equation:



In employing his method the iron and arsenic were initially separated by both the above described methods, I. and II., in order to compare the results.

(a) *Separation of the Iron and Arsenic by Method I.*—The solution of arsenic acid, obtained as described under Method I., was brought into a 100 c.c. glass-stoppered bottle and 2 grams of potassium iodide added, together with sufficient hydrochloric acid to produce a 20-per-cent. HCl solution, any precipitate being re-dissolved by the smallest possible quantity of water. After ten minutes the liberated iodine was titrated with a standardised solution of sodium thiosulphate with the use of a little light petroleum to indicate the end of the reaction.

For the estimation of the iron it was obtained by precipitation with sodium hydroxide as in Method I. The ferric hydroxide was collected, washed, dissolved in 10 c.c. of hydrochloric acid, and the solution diluted to the measure of about 50 c.c. This was transferred to a 100-c.c. glass-stoppered bottle, 2 grams of potassium iodide added, and, after standing for half an hour at a temperature of 40° to 80° C., the cooled liquid was titrated with a standardised solution of sodium thiosulphate, using starch as an indicator.

(B) *Separation of the Iron and Arsenic by Method II.*—The precipitate of ferric hydroxide obtained by adding a solution of sodium hydroxide was treated and iron estimated as above under (a).

For the estimation of the arsenic the alkaline filtrate and washings were concentrated, hydrochloric acid added to produce 20 per cent. of free HCl, and titrated as for arsenic under (a).

Percentage of Arsenic in Soluble Iron Arsenate.

	Method I.	Method II.	Method III.	
			α	β
Amount taken (grams)	1.0284	0.9449	0.8522	0.9970
$\text{Mg}(\text{NH}_4)\text{AsO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$ obtained (grams)	0.3480	0.3188	—	—
N 10 Thio. used	—	—	31.0	35.2
Percentage of arsenic...	13.33	13.29	12.83	13.04

From these figures it may be concluded that Method II. affords results sufficiently accurate for technical purposes, and that, when a standardised solution of sodium thiosulphate is available, the assay may be still further expedited by the volumetric determination of the iron and arsenic, as described under Method III. (β).

Although the composition of soluble iron arsenate is naturally subject to slight variation, if the amount of arsenic be assumed to range from 13 to 13.5 per cent., it would approximately correspond to 34 to 35 per cent. of anhydrous ferric arsenate. The proportion of iron would be about 11 per cent., but the adoption of a standard for this element is obviously of much less importance than the control of the arsenical content of the preparation.

* After completing these experiments it was observed that the "National Formulary," 3rd ed., 1906, has adopted a syrup of arsenate of iron, prepared as follows: 0.40 gram of anhydrous sodium arsenate and 0.35 gram of ferric citrate (U.S.P.) are dissolved together in 32 c.c. of water, and this solution is then mixed with sufficient syrup (U.S.P.) to make 1,000 c.c. of finished product. Four c.c. of the syrup is stated to contain about 0.0016 gram of ferric arsenate, which would be correct if the prescribed amount of sodium arsenate were completely converted into ferric arsenate; but this is not the case, as the amount of iron required is approximately double that present in the official salt.

† The designation "soluble iron arsenate" has, most unfortunately, been adopted by the "B.P. Codex," p. 427, under the evidently incorrect title of "ferri citro-arsenias ammoniatus (ammoniated citro-arsenate of iron)." It is said to be a double salt of ferrous arsenate and ammonium citrate, occurring in green or yellowish-green, deliquescent scales, very soluble in water, and containing from 15 to 18 per cent. of metallic iron and the equivalent of 1.4 per cent. of arsenious anhydride. A preparation corresponding with the above has been in use for some time, but it is designated by the manufacturers "iron arsenite with ammonium citrate (ferrous arsenate with ammonium citrate)," and the synonym adopted by the "B.P. Codex" is, therefore, evidently a misnomer.

Conference Notes and Pictures.



THE TWO LOCAL PRESIDENTS.

Mr. Giles and Mr. Spence. (A Photograph taken at Macischal College by Mr. Cleworth.)

THE BRAEMAR EXCURSION.

We briefly reported last week the leading features of the excursion from Aberdeen to Braemar on Thursday, September 17. The weather was excellent and the arrangements were well carried out. During the first halt of the coach drive at Jennie Deans' (there were ten "viackles," as Mrs. Birse, of Clinkstyle, had it) boxes of sandwiches and bananas were distributed, and were much appreciated. The photograph of the party, taken by Mr. Fred M. Hardie, 416 Union Street, Aberdeen, at the Princess Royal Park, Braemar, was a distinct success, in spite of the high wind and Scotch mist that prevailed. We reproduce it on this page. Mounted copies of the photograph may be obtained from Mr. Hardie at 3s., by post.

The following are some of the names. Beginning at "I" in the second row: Mr. John Smith (President P.S.I.), Mrs. W. Giles, Mr. Giles, Mrs. Tocher, Mr. J. F. Tocher (President-elect), Mr. R. Wright (President), Mrs. Wright, Mr. R. A. Robinson, Mrs. Edmund White, Mr. E. Saville Peck, Mr. George Lunan, Mrs. Lunan, Sir Edward Evans, Mr. P. D. Milne, Mr. David Ritchie, and Mr. James Kidd (Manchester). Sitting exactly in front of Mr. R. A. Robinson is Mrs. Glyn-Jones, and in front of her Mr. Feaver Clarke and Mr. W. F. Hay (Local Secretary). Mr. Glyn-Jones is to the right of his wife and Mr. Robert Tocher on the left. The veteran behind Mr. R. A. Robinson is Mr. Silson, of Bradford, and to the right of him are Mrs. Silson, Mr. McMurray (Helensburgh), Mr. D. B. Dott, Mr. Wilson (Haddington), Mr. J. R. Hill, Mr. W. Duncan and Dr. George Coull. To the left of Mr. Silson are Mrs. Anderson Russell, Mr. Russell, and Mr. W. E. Glass (Edinburgh). Behind Mr. Russell is Mr. Strachan (Davidson & Kay). "C" is Mr. Maltby Clague (Local Secretary for the Newcastle meetings), and standing to his left is Mr. W. Cummings, of Dundee. The John-Burns-like gentleman sitting on the ground is Mr. Rees, of Dowlais. On the extreme right of the picture is a group, beginning at "X": Mr. W. A. H. Naylor, and to his left Mr. D. L. Howard, Mr. J. Harkness, and Mr. J. W. Sutherland. Behind the last are Mr. Joseph Coates (Raines, Clarke & Co.), and Mr. Penny. Mr. Foggan is kneeling in front of Mr. Sutherland, and Mr. Frank Clarke reclines at his left. The gentleman in the Glengarrie cap at the extreme rear of the group is Mr. Reith, who was the Chairman of the Excursion Committee, and whose activities for the comfort of the visitors were generally commented upon.



All the visitors were struck by the thoughtfulness of Mr. A. R. Clark, the chemist of the village, who had decorated his pharmacy for the occasion. Mr. Cleworth took a photo-



THE BRAEMAR PHARMACY.

[Photo by Cleworth.]

graph of it at our suggestion, a group of conferrers standing in front, with Mr. Clark between the two Presidents. This was before the luncheon at the Invercauld Arms, which was served hot. Mr. Reith (Chairman of the Excursion Committee) had been in Braemar from the day before, and the meal was just right. Mr. Giles presided and was supported on the right by Mrs. Wright, Mr. and Mrs. Glyn-Jones, Mrs. Giles, Mr. R. A. Robinson, Sir Edward Evans, Mr. John Smith, and Provost Alexander. On the left were Mr. R. Wright, Mr. and Mrs. J. F. Tocher, Mr. and Mrs. George Lunan. After luncheon the loyal toasts were proposed by Mr. Giles, who followed with a reminiscent and pertinent speech in proposing prosperity to the B.P.C., which concluded with an appreciation of the service done to the B.P.C. by Mr. Wright,



JENNIE DEANS INN, COILLECRIECH.

Mrs. J. F. Tocher, Mr. and Mrs. George Lunan. After luncheon the loyal toasts were proposed by Mr. Giles, who followed with a reminiscent and pertinent speech in proposing prosperity to the B.P.C., which concluded with an appreciation of the service done to the B.P.C. by Mr. Wright,



ANTICIPATING NEXT YEAR.

Group taken at Princess Royal Park by Mr. Cleworth, showing the Newcastle contingent and the President. The names from left to right are Messrs. Clague, Noble, Williamson, J. F. Tocher, G. F. Merson (Kilmarnock), and Foggan.

and a prophecy that Mr. Tocher would show exceptional ability in the same capacity. Provost Alexander followed in equally happy vein. In acknowledging, Mr. Wright, after speaking of the remarkable hospitality of Aberdeen—town

and county—struck an Imperial note by expressing the opinion that before the Jubilee of the Conference is celebrated five years hence it will have so progressed in the esteem of all British pharmacists that on that occasion a Colonial President may be called to the chair. Mr. Tocher also replied; then Mr. Peck gave the toast of "The Ladies," Mr. David Anderson replying; and Mr. Robinson gave the health of the Chairman.

The hotel stands on the very spot where the Earl of Mar raised the standard of rebellion in 1715, a fact recorded on a brass plate inside the lounge. This has inspired the following postcard effusion:

Standing on the braes o' Mar,
Ye saw them comin' near and far,
In char-a-banc and motor-car,

The British Pharmaceutical.

Reith had been there a' the day,

Workin' nicht and day they say,

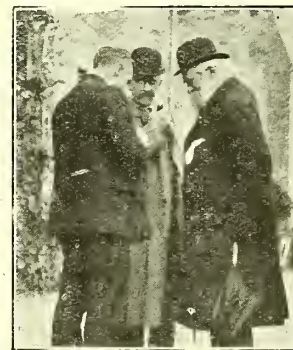
A Hielantman frae tap ta tae,

The British Pharmaceutical.

F. P.

The excursionists then began to resume their places in the coaches. Dr. H. Macnaughton Jones, who was staying in the hotel, was an interested spectator, and had conversations with Mr. Peck, Mr. Wright, and Mr. John Smith, President of the Pharmaceutical Society of Ireland. As a souvenir Dr. Macnaughton Jones has since sent each of these gentlemen a signed copy of his poem "The Old Sun Dial in Stirling Churchyard."

The return journey to Ballater was even more enjoyable than the morning drive. On arriving at Ballater Mr. W. Wallace Tytler, chemist there, was one of those who welcomed the party at the Gordon Institute, where tea was served, and after tea Mr. Charles Kerr, of Dundee, expressed the thanks of all to the Local Committee for their hospitality. The train journey to Aberdeen was full of incidents—within the carriages, but we must plead the attributes of Sir Boyle Roche's bird as excuse for not entering into detail. There was an informal concert in the Grand Hotel late in the evening.



A MEDICO-PHARMACEUTICAL CONFERENCE.

The names from left to right are Mr. Saville Peck, Mr. R. Wright, and Dr. Macnaughton Jones.

ON FRIDAY

the Federation meeting occupied most of the men until 12.30, and at 1.20 a party of eighty ladies and gentlemen took train



AFTER THE PRESIDENT'S ADDRESS.

A group of ladies taken at Marischal College by Mr. Hardie on Tuesday, September 15.

to Cruden Bay, whither others had gone earlier for golf. This was a most restful time, and was regarded by many as a fitting termination to a very successful week.

EARLIER DOINGS.

During the morning of September 16 Old Aberdeen was visited by the ladies, and St. Machar's Cathedral and King's College were also viewed. The weather was good and the outing delightful, the members and friends returning in time for the close of the morning session. The cathedral was built in 1357, on the site of an earlier church named in honour of its founder St. Macarius, or Machar, of whom little is known, but the foundation cannot be put later than 597, the date of St. Columba's death, since he accompanied St. Columba to Rome, and never returned to Britain. A special interest is attached to the Cathedral since it is the



WAITING FOR THE INVADING HOST.

These were early comers at Aberdeen last week. From right to left they are Mr. A. J. Pidd, Miss Griffiths Hughes, Mr. R. Feaver Clarke, Mr. Griffiths Hughes, Mr. Ashton, Mr. W. F. Hay (Local Secretary). *{Photo by Cleworth.}*

only one built of granite in the United Kingdom. The old church has had a very chequered experience, but viewed as it now stands it is a highly interesting and picturesque object. The western aspect, with its noble window of seven lights, flanked by lofty towers and capped by quaint old steeples, says the late John Ramsay, is singularly beautiful and striking, more especially when glowing under the mellowed rays of the western sun.

Wednesday's outing was begun in a corridor-train, which carried a party of about 200 members to Muchalls, where the coastguardsmen received them, the village having a brave display of bunting in honour of the visitors. The railway officials' action in not requiring the member's ticket to be changed into a railway ticket conveniently facilitated matters at the Aberdeen end, and the strength of the party at Muchalls must have been somewhat of a surprise to the villagers, several minutes elapsing before all the visitors were over the railway bridge, some of the bolder members crossing the line. A short tour around the top of the cliffs revealed the craggy, bold outline of the coast, but the leaden skies, slight rain, and boisterous wind detracted from the natural grandeur of the scenery, and the members were all at the Marine Hotel or inspecting the village before an hour elapsed.

B.P.C. Executive Meeting.

A MEETING of the Executive Committee was held at the Grand Hotel, Aberdeen, on September 14. Present: Mr. R. Wright (President) in the chair; Messrs. Lunan and Naylor (Vice-Presidents), Peck and White (Hon. Secretaries), Alcock, Giles, Hay, Howard, Martindale, Tocher. Apologies for absence were received from Messrs. J. S. Hills, Idris, Martin, Payne, and J. C. Umney.

The programme of the proceedings on Tuesday and Wednesday was discussed and details settled. Mr. Naylor moved, and Mr. Tocher seconded, that the size of the "Year-book" for 1908 be reduced, remarking that a small, well-compressed abstract of reports of scientific work done was equally valuable with a more lengthy one.

The motion was agreed to.

On the Treasurer's report of the small sales of the "Index" some remarks were made, Mr. Alcock and Mr.

Naylor emphasising the value of the work and regretting that members generally did not appreciate it more.

The following nine new members were elected: Dr. W. J. Bowis, Nottingham; Messrs. H. F. Cook, Cambridge; Alex. Mackie, Culter; Thos. Needham, Huddersfield; J. C. Pentney, London; C. T. Rutter, Hanwell; Thos. Stephenson, Edinburgh; David Turner, Singapore; L. Williamson, Newcastle-on-Tyne.

The Newcastle Election.

THE Parliamentary by-election at Newcastle-on-Tyne will be over by the time these lines are read, but it is desirable to place on record how the Liberal and Unionist candidates view pharmacy and poisons legislation. In the General Election Mr. Renwick, the Unionist candidate, expressed himself sympathetically in favour of the principles of Mr. Winfrey's Bill. The officers of the Newcastle-on-Tyne Pharmaceutical Association desired to know what Mr. E. Shortt, the Liberal candidate, would do in the event of his being returned to Parliament. He received a deputation from the Association at the Station Hotel on Monday afternoon, and the editor of the *C. & D.*, happening to be in the town, was asked to join it. The deputation was introduced by Mr. Robert Wright, ex-President of the Association, and one of Mr. Shortt's supporters. Mr. Wright briefly explained the objects of the legislation promoted by the Government and by the Pharmaceutical Society, then Mr. Maltby Clague, President, sketched concisely the objects of the 1868 Act, emphasising the fact that the qualification and title are by that Act obtainable only by individuals, but that corporate bodies appropriate the title "chemist," and cannot be stopped from using it. Mr. Shortt confessed that he had not studied the matter, and could scarcely credit that limited companies use the title with impunity. He asked how it all arose, and the 1880 case was explained to him, he indicating that if that case had been taken on the use of title the decision of the House of Lords would have been different. He added later, "My sympathies are with chemists whom I regard as a body of educated, professional men, although necessarily they keep open shops." Mr. Clague then explained the objects of Clause 2 of the Government Bill, and showed how dangerous would be a return to pre-1868 conditions when poisons were distributed and sold by unqualified persons. He described how the 1868 provisions have effectively kept down fatalities from scheduled poisons, and claimed that this could only be due to the care exercised by the qualified and registered vendors, for fatalities from unscheduled poisons sold by unqualified vendors have increased. Mr. Shortt hesitated to commit himself to opposing the clause, as he thought that sealed packets might be sold by anybody properly licensed. After discussion, however, he agreed with the deputation's contention that it is desirable to maintain the beneficial existing statutory conditions, and he would be willing to consider any reasonable proposals for ensuring that licences to vend the poisons covered by Clause 2 should only be given where the necessity for them is proved, and he would support any proposal that the Pharmaceutical Society, as representing chemists, should be heard by the licensing authority. The deputation, having thanked Mr. Shortt, withdrew, well satisfied with the result of the interview.



MR. SHORTT.

A TRANSVAAL CHEMIST, in renewing his subscription to THE CHEMIST AND DRUGGIST, says: "I wait very impatiently its arrival each Thursday, the day the European mail reaches here from Cape Town."

The exports of white alum from Ningpo during 1907 amounted to 86,215 cwt., against 109,943 cwt. in 1906. Other exports included cuttle-fish to the extent of 29,846 cwt., as against 24,713 cwt. in 1906; also native medicines valued at 73,044*l.*, against 64,328*l.* in 1906.

Federation of Local Pharmaceutical Associations of Great Britain.

THE fourteenth annual meeting of this Federation was held in the Grand Hotel, Aberdeen, on Friday, September 18, at 9.30 A.M. Mr. W. L. Currie (Glasgow) presided, and the following also signed the attendance-book :

Messrs. E. Jones (Secretary and Treasurer); J. R. Hill; W. S. Glyn-Jones; W. Stewart Adamson, Nottingham; R. W. Silson, Bradford; Arthur Goldthorpe, North Kent; John Dolbear, Oxford; J. P. Gilmour, Glasgow; J. Anderson Russell, Glasgow; William S. Glass, Edinburgh; Charles Simpson, Aberdeen; David Moir, Glasgow; William Reid, Aberdeen; J. C. Kidd, Manchester; James Grier, Manchester; A. E. H. Blackburn, Manchester; J. R. Macfarlane, Forfar; Charles Kerr, Dundee; Frank Crossley, Aberdeen; C. T. Rutter, Public Dispensers' Association; John Alexander, Waterloo; William Alexander, Banff; Robert Leslie, Aberdeen; William Giles, Aberdeen; John R. Reith, Culter; H. Raithby Procter, London; R. L. Whigham, London; Harry Burton, Birmingham; J. W. Shepherd, Settle; D. B. Dott, Edinburgh; Alexander J. Dey, Edinburgh; Thomas Needham, Huddersfield; W. P. Want, London; Robert Tocher, Glasgow; Peter MacEwan, London; A. J. Pidd, Manchester; R. Feaver Clarke, Gravesend; A. L. Strachan, Aberdeen; R. P. Rees, Dowlais; Robert Lindsay, Peebles; F. C. Goodall, London; Jas. McMurray, Helensburgh; W. Parsons, Beckenham; Geo. Foggan, Bedlington; W. Pennie, Peterhead; J. F. Tocher, Peterhead; E. Saville Peck, Cambridge; A. H. Barton, Manchester; W. Griffiths Hughes, Manchester; John Gerrie, Aberdeen; Geo. A. Tocher, London; W. B. Cowie, Edinburgh; Jas. D. Duncan, Aberdeen; Alex. Mackie, Culter; James Paterson, Aberdeen; Wm. F. Hay, Aberdeen; F. A. Smith, Birmingham; J. Poole, Birmingham; J. Smith, Dublin; George Lunan, Edinburgh; Charles Hare, Birkdale, Southport; Robert S. Chapman, Donegal; James P. Kay, Aberdeen; H. E. Boorne, Bristol; John Cleworth, Manchester; and Alex. S. Weir, Kemnay.

After the notice calling the meeting had been read by Mr. Jones,

The Chairman desired to extend a welcome to those present representing Associations, and to express the hope that they would have a profitable and a pleasant gathering. (Applause.)

Mr. Jones read the minutes of the last meeting, which were approved.

THE YEAR'S WORK.

The Chairman said that it had not been possible for the officers to do very much work during the past winter. That might be accounted for in many ways. It was quite unnecessary for him to go into them, because circumstances had been such in pharmaceutical work that they had not been able to have any active propaganda. He wished also to say that they had been considerably hampered in their efforts by the want of funds. He desired to state this very strongly, in view of the present financial condition of the Federation. It would not be possible to carry on the work of this Federation successfully unless the affiliated bodies were to pay their subscriptions and remit them when they were due. Quite a number of Associations were in arrears, and they still retained their affiliation nominally. He did not think this was fair to those who were managing the business of this Federation—that they should impose such a large amount of work upon the Executive, who were doing it gratuitously and for the general good of the trade, because it gave the Hon. Secretary alone a very considerable amount of work—work for which he was not paid, and which, taken in conjunction with the carrying-on of his own business, must entail an enormous amount of extra labour. He knew that the Secretary had written numerous letters to those Associations which were in arrears, and even now there were about a dozen Associations which were still in arrears with their annual subscriptions. Then they must also have an improved condition of affairs in regard to the constitution of the Federation, if it was to be successful. He should like to say also that perhaps one or two little points that had cropped up since their last meeting might have prevented Associations from taking the same interest in the Federation which they had done hitherto. He referred to the formation of the Pharmaceutical Defence Union, Ltd., which came up later. He knew from one or two members of Associations over the country that they had been considering the advisability or inadvisability of the proposed new body being the one to

carry on the propaganda which the Federation had been doing. The Executive Committee had had a volume of communications throughout the year, which had entailed a great amount of labour, and their thanks as an Executive were due in a large measure to Mr. Jones for the admirable way in which he had carried out the duties entailed. (Applause.) Not only had he received and replied to communications from all parts of the country, but he had done more than that; he (the Chairman) thought Mr. Jones had brought the Federation and its officials, and pharmaceutical work itself, more prominently before the public than any previous Secretary. He had written to the Press; he had inspired articles which had been written in the public Press and prominently brought forward the position of pharmacy as far as he could before the general public; and he (the Chairman) thought that was a considerable step in advance of anything they had before. (Applause.) Personally he (the Chairman) had done his best to keep alive interest in the Federation work, but, as they could understand, with so many irons in the fire as he had, the work very largely devolved on Mr. Jones and on the other members of the Executive, who had willingly performed all the duties which had been allotted to them. (Applause.) This statement, he thought, was quite sufficient to indicate what they had been doing during the past year, and he hoped delegates would not fail to carry back to their various Associations the message that it was absolutely necessary that the annual subscriptions should be remitted whenever they fell due. (Applause.)

PHARMACEUTICAL DEFENCE UNION.

Mr. Jones said they had a discussion as to the Pharmaceutical Defence Union at the meeting of the Executive held in London in May. On that occasion Mr. Woolcock intimated his willingness to attend to explain the objects of the proposed Union, and it was decided by the Executive to admit him to the meeting. He came and gave a very explicit account of the object of the promoters, and it was ultimately decided by the Executive that the affiliated Associations should be invited to discuss the matter. As the result of that, he (the Secretary) sent out intimation to the Associations as to what the resolution of the Executive was, along with a copy of the objects of the proposed Defence Union, and asking the Associations to consider the matter and remit to him their decision in time for the annual meeting of the Federation. He had got the result. It practically was this—that five were in favour of the Union and eight against it. A great many had remained neutral.

The Chairman said that, after discussion, the Executive decided to take no definite action meantime, and to allow the Pharmaceutical Defence Union to stand or fall by the result of its own labours.

RECONSTRUCTION.

Mr. J. P. Gilmour (Glasgow) said there was no representative from Plymouth present, and Mr. Roper (the President of that Association) had asked him to undertake the charge of the resolution sent up by that body, viz. :

That this meeting is of opinion that the time has arrived when it is absolutely necessary that the Federation should be reconstructed—*i.e.*, with regards to funds, objects, and organisation—and that a strong and representative Committee from affiliated Associations be elected to meet at an early convenient date to effect this, failing which it would not be advisable to continue its existence.

Those of them who had read the reports which appeared in the journals a few weeks ago might recall that the intention of the Plymouth Association was in fact most friendly to the Federation. They realised, just as the Chairman had indicated that morning, that unless the income of the Federation could be substantially increased it was impossible for them to do any executive work, and the idea of the Plymouth Association was that the matter should be referred to a committee for the purpose not only of considering the reconstruction of the Federation, but of devising a scheme for putting it on a sounder financial basis, which would greatly extend its efficiency and increase its sphere of usefulness. They proposed to

have a capitation levy on each member of an affiliated Association, but the amount would be subsequently adjusted. To bring the motion into line with the constitution of the Federation an addition to it was obviously necessary, and he moved that the resolution be remitted to the affiliated Associations for consideration, the result to be reported by the Executive during the Conference week next year.

Mr. W. E. Glass (Edinburgh) seconded, and the Plymouth resolution, with Mr. Gilmour's addition as to remitting it to Associations, was unanimously adopted.

ACCOMMODATION IN LONDON.

The following question appeared on the agenda :

Is it desirable to approach the Council of the Pharmaceutical Society to arrange for a room or rooms at Bloomsbury Square, for use by and convenience of members, those from the country visiting London in particular ?

The Chairman said he did not know how this had come to be on the agenda. He understood it was a question asked by some member of the Association somewhere in the country. He thought he would be quite safe in asking them, not only as a member of Council, but as representing the Federation, to leave this matter in the hands of the Executive.

The matter was remitted to the Executive to deal with.

PARLIAMENTARY SECRETARY.

The next item was "The Parliamentary Secretary Appointment—a Suggestion."

Mr. James Grier said he had learned that morning that this suggestion had been fathered on him in the name of the Manchester Pharmaceutical Association. It had evidently crept into the agenda by some mistake; he had no suggestion to make.

The topic was withdrawn.

HONORARY SOLICITORS.

Another question on the paper was "Is it advisable for local Associations to seek to appoint hon. solicitors?"

The Chairman said this was a very big question; it would be a grand advertisement for the lawyers. (Laughter.) He thought it was a matter for each Association to consider for itself. In the case of any member of the Federation, or any chemist in the country who was associated with the C.D.A., he did not think they required any legal advice outside of that. He thought the question must be left entirely in the hands of Associations themselves. (Applause.)

The meeting was then resolved into a private conference on

THE POISONS AND PHARMACY BILL.

The scheme of the discussion on this subject comprised :

1. An opening statement by Mr. J. Rutherford Hill, in which he put forward clearly the elements of the present position.

2. Questions and remarks by delegates in which local opinion was expressed.

3. An expository reply by Mr. W. S. Glyn-Jones, in direct response to what was said by delegates.

By general consent the meeting practically concentrated attention on the two outstanding points in the Bill embodied in Clauses 2 and 3, relating to the granting of poison-vendors' licences by local authorities and the giving to corporate bodies, and firms in Scotland, the right to use the title "chemist and druggist."

With no uncertain voice the meeting adhered to the emphatic protest of pharmacists generally that Clause 2 proposes to repeal the fundamental principle on which the conditions regulating the sale of poisons under the Pharmacy Act, 1868, are based. The meeting strongly objected to such a repeal as being unnecessary, dangerous, and founded on the fallacious assumption that by sealing up a poison it becomes safe to allow any person to sell it.

Safety, it was asserted, can only be secured by limiting the handing-out of poisons to trained and educated vendors.

In like manner the meeting strenuously protested against the proposal of Clause 3 to transform the professional title "chemist and druggist" into a mere trading designation, as being not only grossly unjust to the great body of registered chemists by whom the title has been acquired under conditions imposed by the State, but also contrary to the public health, in the interests of which these statutory conditions were formulated.

It was clearly explained that pharmacists are so organised and possess so much Parliamentary influence and support that they can within twenty-four hours bring such pressure to bear as will effectually prevent the passing of the Bill. As practical men, however, the delegates realised that some legislation is necessary, and that an important crisis has arisen which gives an opportunity that may never recur. It was felt that, having made their position clear and given expression in the proper quarters to their warning and protest, chemists might throw upon the Privy Council and the Legislature the onus of any untoward consequences which might result. It was further shown that there is a difference between acquiescing in objectionable legislation and abstaining from actively attempting to defeat the passing of the Bill. There is, it was stated, a reasonable prospect of obtaining such amendments as may make it possible for chemists, without accepting any responsibility, to abstain from so actively opposing the Bill as to ensure its defeat, and such a policy the delegates considered to be a practical question of the first importance. If they honestly worked for such a solution, and found, when the Bill came up for second reading* in the House of Commons, that it was still so defective as to demand relentless opposition, they would at least feel satisfied that they had done all that was possible to avert so unfortunate a result. Such a policy, it was felt, is clear, consistent, honourable, advantageous (in many respects), and gives promise of finality.

It was noticeable that the feeling of the meeting and the speeches made [fully twenty] were singularly free from the unreasonable considerations respecting the company question which are frequently used in correspondence controversy. Ultimately the following resolution was unanimously adopted :

This meeting of the Federation of Local Pharmaceutical Associations of Great Britain is of opinion that while the Poisons and Pharmacy Bill as passed by the House of Lords has been in some respects improved, it cannot yet be accepted as satisfactory. The meeting cannot approve of Clause 2, inasmuch as it infringes the fundamental principle of the Pharmacy Act, 1868, which limits the retail sale of poisons to duly qualified persons. Neither can the meeting do otherwise than condemn the turning of the professional title "chemist and druggist" into a mere trading designation.

Meantime, however, the meeting recommends Associations to abstain from any active opposition to the Bill in the hope that the Pharmaceutical Societies of Great Britain and Ireland may, before the second reading stage† in the House of Commons, obtain such amendments as will more effectually conserve the principles of the Pharmacy Act, 1868, and to support the said Societies in any efforts in this direction; and, further, the meeting approves the policy of entrusting to Mr. Glyn-Jones the effective carrying-out of such suggestions as the exigencies of the Parliamentary situation may render necessary or expedient.

At the conclusion of the discussion, and on the motion of the Chairman, Messrs. Rutherford Hill and Glyn-Jones were cordially thanked, and a vote of thanks to the Chairman and Executive was moved by Mr. MacEwan, seconded by Mr. Want, and passed with acclamation. The meeting lasted fully three hours, and was regarded by many present as the most successful in the history of the Federation.

* "Third reading" appears to be meant here; i.e., if the Bill is not properly amended in the Committee stage, a motion for its rejection could be put on the third reading.—EDITOR, C. & D.

† The above note also applies.

CAMPHOR IN CEYLON.—A report from the United States Consul at Colombo has been freely circulated in the newspapers this week, giving a glowing account of what Ceylon is going to do shortly in the way of camphor production. Mincing Lane brokers will be delighted to know that "an early and appreciable contribution to the world's supply of camphor is promised as the result of recent planting operations in Ceylon." They will also be pleased to learn "that enthusiastic planters entertain the belief that Ceylon in a few years will produce camphor in a quantity greater than the world's present demand. . . . The rapid growth of the twigs and the cheapness of land and labour are the factors depended upon by planters to give Ceylon an advantage over other camphor-producing countries." There is much more similar nonsense.

Corner for Students.

Conducted by Leonard Dobbin, Ph.D.

SUMMER STUDIES.

Pharmaceutical Arithmetic.

By Walter S. Clark, Ph.C., A.C.G.I.

REPORT.

Replies to the series of arithmetical exercises set, which commenced in the issue for August 15, were received from thirty-seven students, and the result appears below. The majority of the errors committed ought not to have been made, since they were due either to the fact that the question was read wrongly, or to mistakes in simplifying complex fractions. Thus in A 1 several correspondents calculated the specific gravity instead of the percentage composition of the liniment. Such mistakes are inexcusable. Errors in placing decimal points were frequently made, although these are easily detected by inspection. To give an example, one student handed in the following :

$$\frac{43200 \times 62.58}{55.71 \times 7 \times 1.42 \times 437.5} = 0.112$$

Now $\frac{62.58}{55.71} = 1$ about, and $7 \times 1.42 = 10$ approximately, and $10 \times 437.5 = 4375$ and hence the fraction is approximately equal to $\frac{43200 \times 1}{4375}$. The answer should evidently be 11.2.

Several correspondents were unable to convert the weight of a liquid of given specific gravity into its volume, and *vice versa*. It has been stated before that if w = weight of liquid in *avoirdupois ounces* and v = volume of liquid in *fluid ounces*, and s = specific gravity of liquid, then $v = \frac{w}{s}$. Attention must be specially drawn to the fact that this equation is only true if the quantities are in the measures stated. Before applying the equation, minims and fluid drachms should be converted into fluid ounces, and grains into *avoirdupois ounces*. We may consider the matter in another way. The volume of a grain of water may be called a "fluid grain," and since 100 grains of water occupy 110 minims, it follows that 10 fluid grains are equal to 11 minims. The volume of a liquid in fluid grains = weight of liquid in grains \div specific gravity. For example, the volume of 450 grains of liquid (sp. gr. 1.18)

$$= \frac{450 \text{ fluid grains}}{1.18} = \frac{450 \times 11}{1.18 \times 10} \text{ minims.}$$

Students should avoid unnecessary reductions of quantities, such as ounces to grains or minims. In No. 3 B several replies contained two or three pages filled with figures necessary to convert cubic centimetres to ounces. This should have been avoided by applying the fact that 0.7 grams in 100 c.c. is in the same proportion as 0.7 ounces in 100 fluid ounces.

In spite of the remarks and examples that preceded the exercises given, correspondents have, where possible, used formulæ copied from text-books instead of working from first principles. Exercise 9 C was very easily solved by the use of these rules and formulæ, it is true, but, with one or two exceptions, the replies to it were quite unintelligent. The following solution, although longer, is preferable :

Let there be x grams of 6 % opium in every 100 grams of mixture.

Then there are $(100 - x)$ of 12.7 % opium in every 100 grams of mixture.

$$\text{Weight of morphine in } x \text{ grams of 6 \% opium} = \frac{6x}{100} \text{ grams.}$$

$$\text{Weight of morphine in } (100 - x) \text{ grams of 12.7 \% opium} = \frac{12.7(100 - x)}{100} \text{ grams.}$$

$$\text{Weight of morphine in 100 grams of mixture} = \frac{6x}{100} + \frac{12.7(100 - x)}{100} = \frac{1270 - 6.7x}{100} \text{ grams.}$$

But there are to be 10 grams of morphine in each 100 grams of mixture

$$\therefore 10 = \frac{1270 - 6.7x}{100}$$

and on solving this equation x is found to equal 40.3. This method is applicable to many classes of problems.

RESULT OF COMPETITION.

The following table shows the number of marks awarded the competitors in each series of questions. The total number of marks obtainable in the three sets was 300 :

—	A	B	C	Total
Agricola	100	90	73	263
A. Martret	100	83	65	248
L. J. Sharp	66	100	75	241
H. Brindle	78	72	80	230
J. B. Mackay	100	80	44	224
J. Small	87	95	35	217
G. F. Jarvis	100	74	32	206
N. Riddle	72	60	54	186
J. W. Ford	88	36	61	185
R. Cocking	78	54	44	176
H. Jephcott	—	100	75	175
W. O. F. Sinclair	56	46	70	172
A. McG. Garden	78	37	56	171
A. A. Cruickshank	63	54	50	167
S. H. Stroud	51	57	57	165
F. Brindle	36	58	58	152
J. Thomas	85	42	25	152
Beginner	48	60	42	150
W. H. C.	63	47	16	126
T. S.	61	39	25	125
A. G.	66	47	—	113
Carnotier	68	28	—	96
Ferrum	—	58	32	90
C. G. O.	—	45	35	80
J. M.	23	22	34	79
Ednyfed	—	75	—	75
Max	40	31	—	71
J. G. M.	—	39	32	71
F. A. P.	61	—	—	61
J. P.	—	—	52	52
Tetrad	28	24	—	52
Phenol Phthalein	—	—	47	47
A. J. C.	—	18	25	43
E. H. W.	—	29	—	29
E. J. C.	28	—	—	28
J. H. H.	28	—	—	28
R. L.	26	—	—	26

PRIZES.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

The First Prize for the best series of answers has been awarded to

A. J. JONES, 25 Lamb Street, Spitalfields, E.

The Second Prize goes to

A. A. MARTRET, 31 Leigh Hall Road, Leigh-on-Sea, Essex.

The following competitors, having answered over 50 per cent. of the questions correctly, will receive a copy of Proctor's "Manual of Pharmaceutical Testing."

L. J. Sharp, 16 Ankle Hill, Melton Mowbray.

H. Brindle, 32 Vance Road, Blackpool.

J. B. Mackay, c/o J. Wright, 160 Fountainbridge, Edinburgh.

J. Small, c/o Mr. Hutton, 3 High Street, Brechin.

G. F. Jarvis, 12 Sydenham Road, Sydenham, S.E.

N. Riddle, 13 South Guildry Street, Elgin, N.B.

J. W. Ford, 147 Holdenhurst Road, Bournemouth.

R. Cocking, 168 Lily Terrace, New Hall Lane, Preston.

H. Jephcott, 35 Park Road, Redditch, Worcs.

W. O. F. Sinclair, c/o Messrs. Marley & Russell, 124 Northumberland Street, Newcastle-on-Tyne.

A. McG. Garden, Mary Cottage, Millbank Lane, Aberdeen, N.B.

A. A. Cruickshank, 17 High Street, Weston-super-Mare.

S. H. Stroud, 1 Severn Street, Leicester.

F. Brindle, 13 St. Helen's Road, Bolton.

J. Thomas, Newcastle Emlyn.

R. W. Humphreys, 13 High Street, Llangefni.

ANALYTICAL COMPETITION.

An announcement in regard to a series of exercises in qualitative analysis will appear in our next issue.

English News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Brevities.

The London County Council have affixed a memorial tablet to 87 Jermyn Street, which was formerly the residence of Sir Isaac Newton.

The Royal Court Theatre, Ryland Street, St. Helens, was bought at auction on September 15 by Mr. Rowed, on behalf of Alderman J. Beecham, for 15,250*l*.

Ten Margate chemists announce that they will close their establishments on Thursdays at 5 p.m. from April to October, and at 2 p.m. from November to March.

Princess Hatzfeldt-Wildenburg has presented to the London Hospital an installation of Dr. Tyrnauer's hot-air apparatus for the treatment of gout and rheumatism.

Messrs. W. G. Cross and W. Adams, pharmaceutical chemists, have been appointed members of the local Old-age Pensions Committee by the Shrewsbury Town Council.

The St. Bernard dog which is to be seen at Spratt's Pavilion in the Franco-British Exhibition has lost an eye, and Mr. Rowland Ward, F.Z.S., has been commissioned to replace it with an artificial one.

St. George's Church, Altrincham, is to be provided with a peal of ten tubular bells at a cost of 300*l*. to 400*l*., through a bequest of the late Mrs. Foden, wife of Mr. Joel Foden, chemist and druggist, who retired from business some years ago.

Lord Curzon has promised to stand as godfather to the infant child of a Sunningdale chemist. The baby was born a short time previous to his Lordship's unlooked-for visit to the pharmacy which was made owing to a motor-car accident.

Mary Ann Rolls was committed for trial at St. Albans Quarter Sessions, on September 16, on a charge of wounding her son-in-law, Sydney Kemp, a doctor's dispenser, Hemel Hempstead, in the face and neck with a bread-knife. She was liberated on bail in 20*l*.

Mr. J. E. Lee, chemist and druggist, Broad Street, Teddington, had an artistic stall at the Teddington Trades Exhibition held this week. The decorations were mauve muslin and artificial roses, with a plentiful display of lavender-water, Erasmic soap, and other toilet-preparations.

The business carried on by Mr. R. Feaver Clarke, pharmaceutical chemist, 21 High Street, Gravesend, has this year been established for a century. It was founded in 1808 by the late Mr. Charles Spencer. Mr. Clarke has been the proprietor of the business for the past thirty-three years.

Over 2,000 of Messrs. Cadbury's employes and friends left Bournville for the Franco-British Exhibition on September 19 in three trains running directly to the Uxbridge Road entrance. The day proved very enjoyable, the special programme provided facilitating the arrangements for the convenience of the trippers, who were admitted to the numerous side-shows at reduced prices.

Chemist-Councillor's Protest.

Mr. George James Knight, chemist and druggist, 452 Edgware Road, London, W., a member of the Marylebone Borough Council, made a spirited protest against what he regarded as the neglectful conduct of the Paddington Borough Council with regard to the lighting, cleansing, and paving of a portion of the roadway in Edgware Road, at the Marylebone Police Court on September 21. The road divides the Marylebone and Paddington parishes, and Mr. Knight was summoned by the Paddington Borough Council for non-payment of a general rate amounting to 17*l*. 1*s*. 8*d*. In protesting, Mr. Knight said that the paving was in a wretched condition, full of holes, and the consequent vibration caused by the buses is awful and is seriously affecting the houses. The Marylebone portion is cleansed seven times a week, and that under the Paddington Council about seven times a year. Under these circumstances, this demand is tantamount to obtaining money by false pretences; in fact, he went further, and said it was demanding money by

menaces, and to make him pay for it was a monstrous injustice. How was he to get redress? Mr. Paul Taylor said he was afraid he must make an order for payment. Mr. Knight: "Then I am afraid I shall have to go to the jug." Mr. Paul Taylor thoroughly sympathised with him, but he declined to state a case for a higher Court on the ground that he had no power.

Municipal Matters.

Councillor A. F. Barnard, son of Mr. A. P. Barnard, J.P., chemist and druggist, is being mentioned as the next Mayor of Bethnal Green.

Councillor A. Russell Fox, chemist and druggist, Sheffield, is to contest again the Crookesmoor Ward in the forthcoming municipal election in November.

Essential Shooting.

At the shoot for the Elkington Shield, competed for at the Lavington Street range of the London Miniature Rifle League, Messrs. Stevenson & Howell's, Ltd., four teams, A, B, C, and D, were first, seventh, tenth, and fourteenth of the fourteen competing clubs, with scores of 303, 223, 214, and 130 respectively, the A team winning by 12 points.

Fires.

A fire occurred on the premises of Mr. F. Mallinson, chemist and druggist, Market Street, Heckmondwike, owing to the overheating of some chemicals on a gas-stove, but the flames were subdued by the application of "Kyl-Fyre" by a neighbour before the fire-brigade arrived.

A disastrous fire broke out shortly after 10 p.m. on September 21, on the premises of Mr. W. Lonnon, chemist and postmaster, High Street, Collier's Wood, Merton, London, S.W. The fire-brigade was soon on the spot, but damage estimated at 800*l*. was done before the flames were subdued. The buildings, stock, and furniture are insured.

Topsy-turvy Building.

According to a local editor, the shop of Messrs. Booth & Openshaw, manufacturing and family chemists, Darwen Street, Blackburn, was built downwards. The old premises becoming too small for the business some years ago, the upper portion was enlarged and reconstructed. When that was completed another portion was taken in hand, and so on till the whole building had been renewed and made more commodious. The premises were thus not only built from top to bottom, but business was carried on as usual in the meantime.

"Jackson's Febrifuge."

Some scathing comments concerning the above preparation were passed at the City Coroner's Court, Manchester. An inquest was held on September 21 on the body of Mary Ellen Swingles, a widow of about seventy, who, being taken ill with pneumonia, called in Jackson, who treated her with the febrifuge, but charged nothing for his services. On his recommendation a registered medical practitioner was sent for, but the patient died before his arrival. The Coroner said a day would come when Jackson would be held legally responsible, as in this case he was morally responsible, for the woman's death. The jury returned a verdict of death from natural causes, and severely censured Jackson.

Disinfection in Bedfordshire.

The Biggleswade medical officer of health states in his annual report that disinfection with formaldehyde gas by means of the Lingner apparatus has been regularly used since June, and in the Biggleswade Rural District, he says, since the beginning of the current year disinfection by formalin gas, generated by mixing formaldehyde solution with potassium permanganate, has been introduced, and the method is considered most convenient for rural districts, as it requires no apparatus. Previously sulphur fumigation had been used.

Midland Notes.

The contents of the printing-office, the pill-machinery, and apparatus for the manufacture of "Whitwell's Celebrated Cough-drops" are advertised for disposal by auction at Stourbridge on September 25, and, together or separately, the chemist's and pawnbroking businesses.

Mr. Harry Key, 97 Hill Street, Birmingham (C. & D., July 18, p. 80) had his conviction affirmed without reduc-

tion of sentence by the Court of Criminal Appeal on September 18.

The infant death-rate in Bartholomew's Ward, Birmingham, of 263 per thousand gives an opportunity to local chemists for maternal education with regard to infant-feeding and feeding-bottles.

The jolting of the Burslem tramcars has caused complaints to the Corporation authorities that the bottles in the chemists' shops slide to the edge of the shelves, and are in imminent danger of falling off.

Trade is bad in Coventry, but an increase of 1,000 employes, owing to the removal of the Humber Cycle Co.'s works from Beeston (Notts), should be good news for the former city, if not for the latter town.

An opportunity for a pharmacist skilled in x-ray work is offered at the Queen Hospital, where a radiographer is required. The honorarium is twenty-five guineas, and the appointment is tenable for three years.

Although the preparation of the burrs for the market has not been so expensive, according to the proprietors of the Worcester hop-yards, the picking is difficult, owing to torrential rains, and the yield is about 9 cwt. per acre.

Leamington Council has already a Bath-chair spa, and now a penny rate, producing 680*l.*, has been voted to provide music in the Jephson Gardens. The community of pharmacists should benefit by the expected increase in visitors.

The question of tradesmen giving goods to the promoters of bazaars for charitable and religious purposes has been settled by one combination of traders, according to the "Birmingham Daily Mail" for September 19. A rigid compact has been made not to comply with such requests under any circumstances. Will the pharmacists follow suit?

George Edward Tipping, butcher, was fined 5*s.* and costs at Sparkhill, near Birmingham, on September 21, for assaulting Mr. Harry Hill Lear, a retired chemist and druggist, of 77 Grove Road. According to the complainant, he was struck by the defendant on the neck while preventing two large dogs from worrying a small one in a field occupied by the defendant, who also dragged him about 500 yards and struck him again. Tipping denied striking Mr. Lear, but said he ejected him by taking hold of him by the coat-collar.

The "Midland Medical Journal" publishes the outline of a scheme for the establishment of a Central Provident Dispensary, with the view to bringing about co-operation between the various hospitals in the city, the General Dispensary, and the City Aid Society. The object is to relieve the out-patient department of the hospitals of many trivial cases; to encourage self-help and thrift among the working classes by enabling them to make small periodical payments to a provident dispensary, thereby securing for themselves, as a right and not as a charity, the advantages of medical attendance and medicine during sickness; and further to relieve a grievance which medical men have against hospitals and dispensaries by giving them an opportunity of obtaining some remuneration for work done for those whose circumstances do not allow them to make larger payments. Among the benefits offered to members of the dispensary are free choice of medical attendant from among a number of qualified practitioners in the immediate neighbourhood; attendance at their own homes, if patients should not be well enough to attend at the surgery; medicines supplied by the local branch of the Birmingham General Dispensary; and the advice of consulting physicians or surgeons in the city on payment of reduced fees. Pharmacists should have a look-in in supplying medicine. Who is looking after the interests of the craft?

GUATEMALA IMPORTS.—The imports of chemical and pharmaceutical products into Guatemala during 1907 amounted in value to 56,722*l.*, as compared with 48,498*l.* in 1906. The following shows from where the imports were drawn: Pharmaceutical and chemical products: 1906, 850*l.*; 1907, 2,120*l.* (United Kingdom); 1906, 6,400*l.*; 1907, 7,770*l.* (Germany); 1906, 7,830*l.*; 1907, 10,940*l.* (United States). Substances used in pharmacy, perfumery, and in the chemical industries: 1906, 4*l.*; 1907, 140*l.* (U.K.); 1906, 800*l.*; 1907, 470*l.* (Germany); 1906, 1,430*l.*; 1907, 1,060*l.* (U.S.A.); perfumery: 1906, 570*l.*; 1907, 720*l.* (U.K.); 1906, 3,340*l.*; 1907, 2,600*l.* (Germany); 1906, 3,000*l.*; 1907, 990*l.* (U.S.A.).

Irish News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Chemists and Druggists' Society of Ireland.

The opening smoking-concert of the season in connection with this Society has been fixed for October 1 in the Society's rooms, 11 Waring Street, Belfast. Mr. John Frackelton is arranging the programme. The concert is the first of a series of social evenings which have been arranged for the coming winter.

The Haslett Memorial.

The statue to the late Sir Jas. Haslett, M.P., the eminent Belfast chemist and druggist, is now well in hand, and will be erected in the City Hall grounds in 1909. The fine mansion in Princess Gardens where Sir James lived is in the market for sale, the family having decided to live elsewhere.

Personal.

Mr. J. C. C. Payne, J.P., pharmaceutical chemist, 134 Dublin Road, Belfast, has been appointed Chairman of the General Committee of the Belfast Branch of the National Society for the Prevention of Cruelty to Children, an organisation in which he and his wife have long taken a deep interest. Mrs. Payne is a Poor-law Guardian, and she has just been appointed to a committee of the Guardians which is to investigate important matters in connection with Poor-law relief for those in distress through the current trade depression.

Trade Development.

The manufacture of potash is to be undertaken at a factory between Galway and Clifden. An announcement to that effect was made at the Galway Exhibition last week.

The Hibernian Industrial Development Association are taking steps to push the sale of Carrageen moss, the sale of which is at present limited. The Association also consider that the sale of yarrow, which is in demand in rural districts, could be extended.

Guardians' Doings.

When the Ballycastle Board of Guardians desired to return a drug supplied to the Cushendall Infirmary which had been found defective, it was discovered that all the drug had been used in the ordinary course.

The Edenderry Guardians have been informed that as the contracts for medicines and appliances were entered into without the L.G.B.'s consent, recoupment cannot be allowed on the last half-year's supply. When fixing-up the contract, the Guardians refused to consider tenders which came from England. The matter is to be discussed with the auditor.

Analyst's Salary.

Sir Chas. Cameron recently applied to the North Dublin Board of Guardians for an increase of salary as analyst to the Union, on the grounds of the large number of samples analysed; and a committee to whom the matter was sent took counsel's opinion as to whether Sir Charles is bound to analyse food without charge by virtue of his position as food inspector under the Corporation, and whether, if entitled to payment at all, he can refuse to analyse food because his salary is not raised. Mr. John Muldoon, M.P., B.L., has given as his opinion that Sir Charles Cameron must analyse all articles of food and drugs sold within the city of Dublin, sent to him by officers of the Corporation, and so long as he holds the appointment of analyst to the North Dublin Union he cannot refuse to analyse; and a committee to whom the matter was sent Counsel added that he believed that the original appointment of Sir Chas. Cameron by the Guardians was in excess of their powers, that the annual salary paid to him was unlawfully paid, and that an increase of such salary would be also unlawful.

TOKIO EXHIBITION.—The year 1917 has now been selected for the Tokio Exhibition, the postponement of which we announced recently.

Scotch News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Aberdeen and the North.

Mrs. H. Bristowe Care attended the Pharmaceutical Conference last week along with her husband.

Mr. Wm. Falconer, chemist, Turriff, has disposed of his business to Mr. John Byth, chemist, Dyce.

Mr. Jas. A. Horton, chemist, Bucksburn, has been appointed a member of the Old-age Pensions Sub-Committee (Aberdeen district) of the Aberdeen County Council.

A photograph of Mr. J. R. McHattie, chemist, late of Torphins, appeared in the "Evening Express" last week in connection with the presentation to him already reported.

Scarlet fever is rather prevalent in Aberdeen at present. The medical officer for the city reports that there were 200 cases in hospital last week. Most of them, however, are of a mild nature.

Professor Hamilton, who recently resigned the chair of pathology in Aberdeen University, has also resigned his position as pathologist to the Aberdeen Royal Infirmary, a post which he has held for twenty-one years. He has been asked to allow his name to remain on the staff of the infirmary as hon. pathologist.

Heather Honey.

The honey-harvest just closed in Scotland is the best since 1901, and apiarians are inclined to accept a lower price than formerly, 1s. 3d. being the general quotation for pure heather-honey. The highest yield recorded is 100 lb. from one hive in Strathummel, the average in that district being 52½ lb., but on Speyside some bee-keepers have had an average of 70 lb.

The Use of Nitrobacteria.

Some time ago it was stated in THE CHEMIST AND DRUGGIST that experiments were in progress at the Glasgow School of Pharmacy having for their object the demonstration of the effects of using nitrobacteria in growing peas.



(a) INOCULATED.

(b) NOT INOCULATED.

One set of peas was inoculated when about 6 in. high with a nitrobacterine culture, and another set was grown in the same soil, and as far as possible under the

same conditions, but without inoculation. The difference in results is shown in the engravings, the inoculated plants showing greater vigour and yielding a much heavier crop. The plants require liberal manuring in addition to inoculation. On making a section of the nodules the nitrifying bacteroids can be readily seen under the microscope. Mr. Lothian informs us that local farmers have been much interested in this proof, as some experimenters have not been able to verify the claims that inoculation with nitrobacteria assists the growing of peas.

Dundee.

The meeting of chemists' assistants and apprentices, with a view to forming an association, is to be held in Mather's Hotel on Friday, September 25, at 9.15 p.m.

Dr. Hugh Marshall, F.R.S., lecturer on chemistry and on mineralogy and crystallography at the University of Edinburgh, has been appointed to the Chair of Chemistry, vacated by Professor Walker, in University College, Dundee.

"Forfarian" in a local newspaper urges the Don Memorial Committee to secure a site without further delay for the monument to George Don, the botanist. It was hoped that it would be erected in the Reid Park, but so far the Town Council have refused their consent.

Glasgow and the West.

Pharmacists at the watering-places in the West have practically settled down to their quiet season.

Dr. George Beilby, F.R.S., has been re-elected Chairman of the Governors of the Glasgow Technical College.

Messrs. Cockburn & Co., Ltd., chemists, St. Enoch Square, have at present a large display of testimonials in their windows.

Mr. Andrew Macdonald, partner in the firm of Messrs. John Poynter, Son & Macdonalds, manufacturing chemists, 72 Great Clyde Street, Glasgow, figures in the centre of his brother deacons, who occupy nearly a page, as Deacon Convener of the Glasgow Trades House in the "Evening Citizen" for September 10. The "Auld Hoose" is continuing to make progress and to add to its large fund of benevolence under his guidance.

Edinburgh.

Some of those who were at the B.P.C. in Aberdeen last week spent the week-end in Edinburgh. Among them were Mr. and Mrs. Glyn-Jones, Mr. and Mrs. T. Needham, Mr. and Mrs. Procter, and Mr. and Mrs. Whigham.

Monday was the most miserable autumn holiday for a long time; and yet there were some hopeful amateurs who purchased photographic plates before setting out to enjoy the wet day. These enthusiasts are not the sole possessors of the independent spirit. A local chemist sent his assistant to tell the boy he need not come to work on the holiday. "Tell the boss, Mr. —," said that worthy, "A wisnae thinkin' about it."

Welsh News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

The death of Mr. Lewis Lewis, herbalist, Ystrad-Rhondda, removes a quaint character from the district. The deceased, who worked in a colliery for many years, was a diligent reader, and studied herbs during his spare hours.

The Welsh authorities under the Sale of Food and Drugs Acts have apparently great faith in the chemists under their supervision, as only one sample of cream of tartar, reported free from lead, was examined in Glamorganshire, while in Cardiff no samples of drugs were taken.

At the Llanelly Court last week a summons by Mr. Henry Anderson, an Inland Revenue officer, against Mr. Morgan W. James, chemist, Cowell Street, for alleged exposure for sale of twelve bottles of quinine bitters, unstamped, was withdrawn, and no statement in regard to the alleged offence was made.

French News.

(From the "C. & D." Paris Correspondent.)

FATAL ACCIDENT.—The young daughter of M. Chaillan, pharmacist, at Draguignan, was killed by a miller's cart while crossing a road there last Tuesday.

SLEEPING-SICKNESS.—Dr. Laveran has communicated to the Academy of Sciences this week an account of his experiments on sleeping-sickness, the subjects being guinea-pigs. He finds that mixed treatment with atoxyl and an emetic effects a cure.

A TRIBUTE TO M. SCHEURER-KESTNER.—A subscription of 40l. has been handed to the Ligue Nationale Aérienne, a new society for stimulating the manufacture of aeroplanes in France, in memory of the late M. Scheurer-Kestner, the well-known chemist and last Parliamentary representative of Alsace under the French régime.

"THE CARS THAT KILL."—M. Dubouys, pharmacist at La Couronne, near Angoulême, went out for a motor run a few days ago, accompanied by his wife. Near Saint-Cloud, Mme. Dubouys, who was driving, felt that the steering-gear was not acting, and put on the brake. The stoppage, however, proved to be so sudden that the car was completely overturned. M. Dubouys escaped with a few bruises, but his wife had her jaw broken in two places and other severe injuries, to which it is feared she may succumb.

THE JUICE OF THE GRAPE.—A list of substances which may be legally used to colour wines and spirits, included in a lengthy document recently issued by the Paris Municipal Laboratory, is interesting as throwing a sidelight on the question of "What is wine?"—in certain cases at least. Erythrosine, eosine, phloxine, and fluoresceine derivatives give a pleasant pinkish tinge, for a "full red wine" fuchsine is used. Blue and green as used for spirits are produced by Lyons blue or Lumière blue, or malachite green.

CHOLERA PRECAUTIONS.—The outbreak of cholera in St. Petersburg has caused prompt measures to be taken in France with a view to preventing the epidemic spreading here. All passengers coming from Russia have now to pass a sanitary inspection at the frontier stations, under the supervision of an Army doctor and assistants. A disinfecting stove and other sanitary apparatus have been installed at these places for treating the passengers' baggage in case of need. At the terminus of the Northern Railway in Paris a strict supervision is also exercised, but so far no suspicious cases have been reported.

SUNDAY-CLOSING.—At the annual meeting of the Federation of Pharmacists of South-Eastern France, the Presidential address included the following passage: "We notice with much pleasure that the new Weekly Rest Act has considerably stimulated the movement in favour of Sunday-closing agreements. We still hope that by next year all the Associations belonging to our Federation will have put into practice what is not only an act of social emancipation, but will also give to those of us who are not in a position to employ assistants that little freedom which the law already compels us to grant to the assistants themselves."

CONTINUATION CLASSES.—At the same meeting M. Pégurier asked if it would not be possible to establish at the Montpellier School of Pharmacy lectures on cryptogamic botany combined with practical laboratory work, so that younger pharmacists could bring themselves up to date in the subject. Professor Massol (Director of the School) and Professor Jadin replied that they would be quite disposed to organise such continuation classes were they assured (by the local associations or otherwise) of a sufficient attendance to justify the measure. In any case the laboratories of the School are already open to pharmacists, who could always enter themselves as "étudiants libres."

DEATH IN THE FOOD.—M. Rémy, pharmacist, of Paris, took a villa at Dieppe for the season with his family, and entertained some friends to dinner there recently, a "gâteau diplomat" being included in the menu. A few hours after the meal the pharmacist, his wife, and daughter, and the guests who had partaken of the pudding all became very sick and feverish,

while M. Rémy's mother and a manservant who had not eaten the pudding were not affected. A few days of energetic treatment, however, prevented further ill effects, except in the case of the cook, a Mme. Aupaix. On this unfortunate woman, whose condition was interesting, the food had fatal effects, and she has just died at the Dieppe Hospital.

M. BECQUEREL'S BEQUEST.—The son of the late Professor Becquerel has sent the following letter to the Academy of Sciences, which was read at the meeting last week:

I have the honour to inform you that my father expressed the wish to leave the Academy of Sciences the sum of 100,000 f. (4,000l.) in the following terms:

"I bequeath to the Academy of Sciences the sum of 100,000 f. (4,000l.) in memory of my grandfather and father, who were, like myself, members of your Academy. I leave to it the responsibility of determining the best use which it can make of the interest on this capital, whether by creating an endowment or prize, or by distributing this income in a manner calculated to encourage the progress of science."

Allow me to say, Monsieur le Président, that I most cordially sympathise with my father's wishes, and, as for the legacy, I trust that this gift may contribute to the advancement of science.

M. CÉSAR DUVAL, ex-pharmacist and senator, has been re-elected President of the Conseil-Général of the Haute-Savoie department. The twenty-fifth anniversary of his parliamentary life was recently celebrated at St. Julien—his native place, where he spent fourteen years behind a pharmacy counter—by a banquet attended by some 600 persons, including the Prefect of the Department, the Mayor of St. Julien, and MM. Chaumemps and Francoz (senators). The Mayor made a complimentary speech and read a flattering extract regarding M. Duval from the minutes of the Municipal Council, and M. Perillat related the following picturesque incident of the Franco-German War concerning him:

A few years after having obtained his diploma of pharmacist Duval, in 1870, passed through Lyons (where he had studied) with the battalion of Mobiles of the Haute-Savoie, in which he served as assistant army surgeon. The Director of the School of Medicine and Pharmacy, our chemistry professor—"le père Glenard" as we affectionately called him—recognised him in the crowd. He made a point of recognising Duval, and accompanied him, as a father would accompany his child, all through the city of Lyons, sheltering the surgeon in uniform under his umbrella from the pelting rain. Could, gentlemen, a higher mark of esteem and sympathy be given by the professor of a superior school to one of his ex-pupils, who certainly had not in those days attained his present celebrity?

ASSISTING THE PHAGOCYTES.—Dr. Doyen recently returned to Paris from the Medical Congress at Geneva, where he made a communication on the subject of his latest discovery. He says that, after having observed the therapeutic action of the extracts of a certain number of the leaves from the lower classes of plants, he has succeeded in reinforcing the protective elements of the human system, and in stimulating the activity of the phagocytes, those good soldiers of the human citadel. The phagocytes, he says, display their activity chiefly in the destruction of the noxious microbes which generate human diseases, and he believes that by means of certain liquids prepared from the leaves, the phagocytes will be endowed with sufficient energy to eat up all destructive microbes, and such as are at the bottom of most infectious diseases. After observing the action of certain extracts of leaves from the inferior plants which he found very active, it remained to be seen whether these phagogenic liquids had any specific action on given diseases or infections. He obtained certain results by combining the appropriate liquid with anti-microbe vaccine. In some affections, such as pneumonia, erysipelas, or typhoid fever, the therapeutic action is very remarkable. In very severe cases he found it was preferable to utilise the cultures produced from the pathological secretions of the patient. These therapeutic observations on man led him to make similar ones on animals. The results so far observed show that a conclusive effect is obtained in certain maladies to which young dogs are liable, in stomatitis with gangrene, and in pneumonia of horses. An unexpected conclusion was deduced from these observations. It seemed to the doctor that the use of these phagogenic liquids might not only confer immunity against a certain number of pathogenic microbes, but also against a multitude of others.

South African News.

(From the "C. & D." Correspondents.)

Cape Colony.

PERSONAL.—Mr. J. Austin-Thomas, chemist and druggist, of Parow, near Cape Town, has been appointed a Justice of the Peace for the Woodstock division of Cape Colony. Mr. Austin-Thomas has been in South Africa for about six years, and prior to commencing in business in 1904 made a tour of the Colony. He is an active worker in pharmaceutical matters, and before leaving England was in business in Birkenhead. His elevation to the bench of Magistrates will be welcomed by his friends at home and by his colleagues at the Cape.

P.S.O.C.C.—A council and general meeting of the Pharmaceutical Society of Cape Colony was held at the Y.M.C.A. Board-room on August 20. Those present included Messrs. F. C. Mathew (President), J. S. North (Vice-President), W. Froembling (Vice-President), W. Turnbull, J. Sowden, J. Clayton Smith, W. Harper, and the Secretary. Letters were read from various members regarding the proposed new licences. These, the Secretary stated, had been replied to by the general circular sent to all members of the Society as soon as the Government proposals had become known. Comments were made that no acknowledgments of these had been received from any members interested. A general discussion followed on Sunday-closing and the half-holiday, which many Cape chemists would like to see fixed for Saturday instead of Wednesday or Thursday as at present. No resolutions were brought forward.

THE SOUTH AFRICAN MEDICAL CONGRESS held its annual meeting at East London on August 31. The attendance of medical men was disappointingly small, but some very fine exhibits were on view by home and Colonial firms. Messrs. Burroughs Wellcome & Co. occupied the central space of the Exhibition hall and made a very fine display, the stall being in charge of their travelling representative, Mr. Walton. Messrs. Parke, Davis & Co. were represented by Mr. Hull, who exhibited an interesting assortment of this firm's preparations. Messrs. Allen & Hanburys, Ltd. (Mr. Sadler representing), in addition to a tastefully arranged exhibit of their general lines, showed a variety of surgical instruments, but the most prominent display of the latter was by Messrs. Mayer, Meltzer & Co., Ltd., of Cape Town. Messrs. C. E. Gardner & Co., Ltd., of Port Elizabeth and East London, were represented in optical goods, of which the firm make a special feature in South Africa, the stall being in the charge of Mr. J. H. Yeo.

"MEDICINES" AND GENERAL DEALERS.—The sale of medicines by general dealers was to come before the House of Assembly on August 27. The Government is introducing a Bill to regulate such sales, details of which have been published in the official "Gazette." The Bill provides that medicines are not to be sold by general dealers except for medicinal purposes; any dealer who sells medicines containing spirit except for medicinal purposes shall be deemed to have sold liquor without a licence, and be liable to the penalties of the Liquor Licensing Act. Every general dealer shall be compelled to keep a book in which he "shall truly and without delay" enter (a) the date of sale or disposal of any such medicines; (b) the nature and quantity of the medicines disposed of; (c) the name and address of the purchaser. This book must be open to an officer of police whenever required. The penalty for contravention of this Section is a fine not exceeding 10*l.*, or imprisonment not exceeding three months.

THE MEDICAL COUNCIL.—The Select Committee of the House of Assembly, which was appointed to inquire into the working of the Cape Colony Medical Council in its judicial function, issued its report on September 1. The need for such inquiry was disclosed in the serious defects shown in the judicial procedure of the Council during the recent "opium investigations." The Committee, which had medical men in its ranks, recommends as follows:

1. The number of members elected by the profession should be substantially increased, and the nominated

element proportionately decreased, so as to make the Council directly representative of the profession as a whole.

2. If practicable, country practitioners should have direct representation upon the Council.

3. The Medical Officer of Health for the Colony should not be a member of the Council so far as its judicial functions are concerned.

The point of most interest to the chemist is that outlined in the following paragraph taken from a somewhat lengthy report:

It is most important that, in such cases as form the subject of a public inquiry, provision should be made for the proper conduct of the prosecution. In the course of the opium inquiries the absence of such provision led to the Medical Officer of Health occupying a position in relation to those inquiries which was scarcely distinguishable from that of prosecutor.

"CAPE SMOKER."—A very successful smoking-concert, given by the Pharmaceutical Society of Cape Colony, was held at the Grand Hotel, Cape Town, on August 27. Mr. F. C. Mathew (Heynes, Mathew & Co.), President of the Society, was in the chair, and among those present were Messrs. J. A. Mathew, sen. (first President of the Society), H. Evans (Petersen, Ltd.), J. Austin-Thomas, J.P. (of Parow), J. Sowden, A. E. A. Tothill, M. A. L. Tothill, R. Sainsbury (James & Co.), H. Magness-Elgar (Martin Elgar, Ltd.), H. E. Cope, J. Clayton Smith, A. Tyrie, T. J. Hughes, H. S. Pollexfen (Heynes, Mathew & Co.), D. Thompson, E. Scaife (Lennon, Ltd.), W. Turnbull, A. B. Jardine, D. Craig (Petersen, Ltd.), and J. Dell (Secretary). During the evening the Chairman humorously referred to the unpleasant notoriety recently given to the trade by the Government during the taxation proposals, and said "he hoped the evening's entertainment might act as an antidote to any dangerous symptoms." His remarks were as much enjoyed as was a duet he played with Mr. H. Evans immediately after. Mr. R. Sainsbury was responsible for two capital sketches, his topical and pungent allusions being greatly enjoyed. The musical items rendered by Messrs. A. Tyrie, A. Collier, T. J. Hughes, C. Harvey, T. Bruckshaw, and W. Williams were also much appreciated, the audience being clamorous for encores. Mr. H. Evans presided at the piano, and was undoubtedly the hardest worker of the evening.

LICENCES AND PROPRIETARY MEDICINE TAXES.—It is seldom that chemists are the subject of a division in the Cape Parliament, but this somewhat unusual event took place in the House of Assembly on August 24 during a debate in committee on the Government's licensing proposals. The Premier (Mr. Merriman) moved that the inclusive licence for an apothecary be 3*l.* 15*s.* half-yearly, 7*l.* 10*s.* yearly. The Hon. W. P. Schreiner asked if the Premier would not accept an inclusive licence of 6*l.*, and moved an amendment to that effect, Dr. Hewatt supporting. Mr. Merriman said at present apothecaries paid 8*l.* altogether. He thought the Government were treating them very fairly and that they might pass the item as it was. Dr. Beck, in supporting the amendment, said the apothecaries were in a very hard position in country districts, as general dealers stocked all kinds of proprietary medicines. Mr. Struben emphasised the fact that the apothecaries' profits were cut extremely fine. The Hon. W. P. Schreiner said that the apothecary had to pass a severe examination, and he was virtually a professional man. Sir W. Thorne pointed out that the apothecary did not sell similar goods to what the general dealer did, but that the general dealer sold many articles pertaining to the chemist's business. He hoped the Prime Minister would agree to the reduction proposed in the amendment. The Hon. W. P. Schreiner called for a division, and the voting was thirty-one for the amendment and fifty-two against. In the debate it was pointed out that the changes would treat chemists unfairly, they having to pay a 7*l.* 10*s.* chemist's licence, a 5*l.* general dealer's licence, and a 1*l.* patent-medicine licence. This brought from the Prime Minister the assurance that the chemist's licence (7*l.* 10*s.*) would be made to cover them all. The net result, therefore, to the retail chemist (whose licences were formerly 5*l.* and 3*l.* respectively for chemist's and general dealer's) under the new taxation will be a saving of 10*s.* a year. On the next item—"Sale of patent or proprietary medicines"

“*cinés*” 1*l.* licence—Mr. Merriman moved to add “except by apothecaries.” This amendment was agreed to. On the item “Stamp-tax on patent medicines,” details of which appeared in the *C. & D.* recently (p. 422), Mr. Merriman moved the adoption of the items proposed, when considerable discussion took place. Messrs. Jagger, Powell, Withinshaw, Hon. W. P. Schreiner, and Dr. Smartt took part in the debate, which chiefly turned on the fixing of a retail price upon which to base the value of the stamp. It was pointed out that the retail value of a patent medicine in the Colony was considerably above the price of the same article in England, and even varied in different parts of the country. Mr. Withinshaw moved to amend the schedule by substituting 1*s.* 6*d.* for 1*s.*, 3*s.* 6*d.* for 2*s.* 6*d.*, and 5*s.* for 4*s.* Mr. Merriman said he could not see what difference that would make. The amendment, which is virtually that proposed by the Cape Town Chamber of Commerce, was negatived. This decision came somewhat as a surprise to the trade, it being generally thought that the amended schedule would be accepted by the Government. The reason of its rejection is probably due to the difference in revenue that will accrue on the second item of the schedule stamp (4*d.*) for medicines above 1*s.* and below 2*s.* 6*d.* Practically all English proprietary medicines of a face value of 1*s.* 1½*d.* retail in Cape Colony at 1*s.* 3*d.* or 1*s.* 6*d.*, and had the amendment passed would only have to bear a 2*d.* stamp instead of the higher rate.

Orange River Colony.

THE GOVERNMENT GAZETTE of August 22 notifies that H.E. the Governor has directed the name of Dr. Bateman, of Zastron, O.R.C., to be erased from the list of registered medical practitioners in the Colony. Dr. Bateman, it will be remembered, was recently called before the Medical and Pharmacy Council on a charge of supplying natives with orders for liquor when they did not medically require it, and the Council’s verdict of “infamous conduct” created much discussion.

MEDICAL AND PHARMACEUTICAL COUNCIL.—A meeting was held at Bloemfontein on August 14. Dr. Ward (President) was in the chair, and the following were present: Drs. Bidwell, Daniels, De Kock, Johnson, and Targett-Adams (public analyst). Messrs. Carter, Hewitt, and Jeffreys (pharmaceutical members) were also present. The consideration of the case of a chemist, charged with selling liquor to natives and convicted under the Liquor Ordinance, was postponed until the next meeting in order to allow further time for the defendant to arrange for his defence. Mr. Charles Fullarton Hardie, chemist and druggist (Cape Colony, 1903), was registered as a chemist and druggist, and the following were appointed examiners for the August examination for chemists and druggists: Botany, Dr. Potts; prescriptions, Drs. Ward and De Kock; practical pharmacy and dispensing and pharmacy and materia medica, Messrs. S. S. Hewitt and John Main; chemistry and physics, Messrs. Stead, B.Sc., and James Lyle. The examination was fixed for August 26 and 27. Dr. Targett-Adams had a motion standing in his name as follows:

That the Government be approached with reference to further regulating the sale of arsenical compounds, with a view to taking further precautions to colour or otherwise render more safe the sale of these poisons; and, secondly, to prohibit the sale of these poisons to coloured persons.

Before moving the resolution Dr. Adams asked for leave to delete the word “these” preceding “poisons” as he wished his motion to include the sale of all poisons in the schedule and others which he might add, such as phenacetin, digitalis, etc., and to cover the sale of patent medicines generally. The motion was agreed to by the Council, the chemists present dissenting. Dr. Targett-Adams then read a long statement of his views on the question of patent medicines, alleging that they were seldom original, frequently harmful, very seldom beneficial, and usually fraudulent. At the end of his statement the President was proceeding to address the meeting on the subject when Mr. Hewitt objected to the matter being discussed without notice having been given, and contended that time should be allowed in order that the views of the persons who would be affected might be obtained, and, further, that the proceedings were contrary to the regulations of the Council which had the force of law and could not be set aside by resolution of the Council. Mr. Carter supported, and after

further discussion this view was agreed to, and it was decided to consider the question at the next meeting of the Council. Mr. Carter’s motion with reference to the use of the title “chemist and druggist” by certain doctors was lost, it being pointed out that the Attorney-General had already given his opinion on this point. A letter from the Colonial Secretary was read in reply to a communication from the Council with reference to certain unqualified persons who had formed themselves into a company and were alleged to be acting as apothecaries in manufacturing medicines, in which it was stated that he (the Colonial Secretary) did not consider this to be a contravention of the law. The matter was argued at some length by Mr. Hewitt, and the Council decided to send a deputation, consisting of Dr. Targett-Adams and Mr. Hewitt, to interview the Colonial Secretary. Mr. Hewitt brought forward the question of the sale of medicines by hawkers, stating what had been done by the Pharmaceutical Society, pointing out the dangers to the public, and moved that the deputation consisting of himself and Dr. Targett-Adams, already empowered to meet the Colonial Secretary on behalf of the Council, be authorised to discuss this matter also. This was seconded by Dr. Targett-Adams and carried unanimously. Dr. G. Pratt-Yule, medical officer of health for the Orange River Colony, was absent from the meeting through indisposition, and it is now feared that he has been attacked by enteric.

Transvaal.

MR. P. J. SPRUYT, the popular manager of the “Koedoe Apothek” pharmacies, has left Pretoria on a trip to Europe.

MESSRS. TURNER & CO., of Johannesburg and Pietermaritzburg, are making extensive alterations and improvements to their pharmacy at the corner of Pritchard and Rissik Streets, Johannesburg.

MR. APPLEBY, who was manager of Mr. W. Harvey’s branch pharmacy at Nigel for a number of years, died from heart-failure on July 18. Mr. Appleby was a native of Ireland, and came to South Africa about twelve years ago. His kindly disposition made for him many friends.

A NEW START.—A handsome new chemist’s shop has been opened in Church Street, Pretoria, under the title of “The Tudor Pharmacy, Ltd.” The establishment is under the management of Mr. Galpin, who for a number of years was assistant with Messrs. Phillips & Co., Ltd., Pretoria. The new pharmacy has been beautifully fitted up by Messrs. Evans Sons Lescher & Webb, Ltd.

SHOP-HOURS ACT.—In the closing week of the Session a Shop-hours Act passed through the two Houses of Parliament practically unopposed. It provides that:

No shop in which any business is conducted within the municipalities of Pretoria, Johannesburg, Boksburg, Germiston, Krugersdorp, Roodepoort-Maraiburg, Springs, and Benoni, and within a distance of five miles from the nearest boundary of any such municipality, shall be permitted to remain open

- later than seven o’clock in the evening on Mondays, Tuesdays, Thursdays, and Fridays;
 - later than one o’clock in the afternoon on Wednesdays;
 - later than nine o’clock in the evening on Saturdays;
- provided that shops in which wholesale trade is carried on shall be permitted to be open on Wednesdays till seven o’clock p.m. if they are closed not later than one o’clock p.m. on Saturdays.

Exceptions are made in favour of restaurants, tea-rooms, railway-bookstalls, etc. A special clause is inserted in the Act providing that:

no shop in which the business of chemist or druggist is carried on shall be permitted to be open for the sale of medicines or medical requirements on Sundays or on public holidays except between the hours of ten o’clock in the morning and twelve o’clock noon, and between the hours of half-past five o’clock and half-past seven o’clock in the evening.

The week-day closing time for chemists is especially stipulated as 8 p.m. on Monday, Tuesday, Thursday, and Friday, 9 p.m. on Saturday, and 1 p.m. on Wednesday, which is early-closing day in Pretoria. Chemists are also allowed to open between 7 and 8 p.m. on Wednesday for the sale of medicines and medical requirements. The Act generally is a very acceptable one to the Transvaal, and the pharmacist-legislator (Mr. B. Owen Jones, of Boksburg) gave it his cordial support.

Australasian News.

The fullest information regarding the Australasian drug-trade and pharmacy is given in "The Chemist and Druggist of Australasia," copies of which can be obtained at 6d. each, post free, from the office of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

The Commonwealth.

SACCHARIN-IMPORTATION.—The prohibition of the importation of saccharin, except in parcels of 11 lb. and upwards, has been rescinded.

New South Wales.

PROPRIETARY MEDICINES.—Leave to introduce a Pure Food Bill was obtained by the Attorney-General of New South Wales on August 5, after a three hours' debate. The length of the debate on a motion for leave to introduce was most unusual, and the greater part of it was taken up by two members—Mr. Carmichael, of Leichhardt, and Mr. Arthur Griffith, of Sturt—who devoted most of their speeches to the question of proprietary medicines. Mr. Carmichael made a point of the rapid accumulation of fortune by Fulford & Co., and when asked how many of Mr. Fulford's patients had died, replied, "If you counted a patient for each pound sterling out of the million he made, I do not think you would be far wrong." This is an illustration of his attitude in the forty-six minutes he occupied in his speech, which would have been much longer if he had not been checked by the Chairman of Committees. Mr. Arthur Griffith spoke for thirty-eight minutes, and was anxious to read paragraphs from Mr. Beale's report, and challenged the decision of the Chairman that he could not do this at that particular stage. He carried his motion to the vote and it was defeated. He returned still to the charge on the question of alcoholic medicines, and urged that the formulæ should be disclosed on the label. On the other side, Mr. Cann, of Broken Hill, pointed out that to interfere with the trade in proprietary medicines would be a serious disadvantage to dwellers in the back-blocks. If time is taken up in this way on the formal motion for leave to introduce the Bill it is evident that there will be a hard fight to get it through its remaining stages. The Attorney-General explained that Clause 16 of the Bill dealing with patent medicines was the clause submitted in last year's Bill. The intention was to deal with patent medicines and every kind of concoction which contains ingredients injurious to health. The Advisory Committee is to be made more elastic, and representations will be given of the business men of the city, the manufacturing industries, the purely scientific side, and the departmental view.

New Zealand.

COMMISSION TO DOCTORS has been a recognised practice in Christchurch (N.Z.) for many years. It probably originated at the time when chemists took over the work of dispensing from doctors, who had carried it on for many years, and agreed to pay the doctor a proportion of the profit that had previously been made upon the work. In the "Christchurch Press" of July 24 the following advertisement appeared:

PRESCRIPTIONS AND COMMISSIONS.

When you find your prescriptions written on the back of some particular chemist's advertisement, it is natural to infer that the writer of that prescription is going to get a cut out of what you will pay for the medicine at the shop advertised.

Now we do not lend ourselves to this system at all, but we undertake to dispense all prescriptions and charge reasonable prices.

So think this out for yourself, and see which way your interest lies.

BARNETT & Co., Dispensing Chemists, Cathedral Square.

ZAMBO AND ZAM-BUK.—At the Auckland Magistrate's Court on July 24, C. N. Bassi was fined 10*l.*, and costs, for infringing the trade-mark Zam-Buk. The Stipendiary Magistrate said that he was not satisfied by any independent evidence that the Zambo goods had been sold prior to 1903, when the Zam-Buk trade-mark was registered. The evidence of the printer showed that in 1907 defendant in-

structed him to print a mark as nearly resembling the registered trade-mark as possible, and the Magistrate's opinion was that they very closely resembled one another. Although defendant's counsel had urged that the Magistrate had a right to decide upon the validity of the trade-mark, he was of opinion that he had no power to go behind the certificate of registration.

THE NEWEST SCHEDULE.—The following is the schedule of poisons to be sold by licensed poison vendors adopted by Central Pharmaceutical Association for submission to the Minister of Health:

Part I.—Sale to be recorded, purchaser to be known, etc.

Arsenic and its preparations.
Cantharides, its tincture and all vesicating liquid preparations.
Chlorodyne.
Cyanide of potassium and all metallic cyanides.
Opium and its preparations containing more than two grains of opium in 400 grains.
Aconitine, apomorphine, atropine, cantharidine, cocaine, codeine, digitalin, heroin, homatropine, hyoscyne, hyoscyamine, physostigmine, pilocarpine, veratrine, their salts, and their preparations.
Tartar emetic.
Biniodide of mercury.
Chloral hydrate.
Chloroform.
Corrosive sublimate.
Ergot of rye and its preparations.
Essential oil of almonds unless deprived of prussic acid.
Morphia and its salts and preparations containing more than one quarter per cent.
Strychnine and its salts, and preparations containing more than one thirty-second part of a grain in 60 grains.
Prussic acid.
Savin and its oil.
Vermin-killers (poisonous).

Part II.—Labelled "poison" with name and address of seller.

Aconite and its preparations.
Belladonna and its preparations.
Bisulphide of carbon.
Butter of antimony.
Chloride of zinc.
Creosote.
Digitalis and its tincture.
Iodine, its liniment and tincture.
Nux vomica and its tincture.
Phosphorus.
Preparations of opium containing less than two grains in 400 grains.
Preparations of morphia containing less than one quarter per cent.
Preparations of strychnine containing less than one thirty-second part of a grain in 60 grains.
All corrosive acids, including glacial, acetic, hydrochloric, nitric, sulphuric, fluoric.
Carbolic acid and its liquid preparations.
Colocynth.
Croton oil.
Indian hemp and its tincture.
Mercury and its salts not in Part I.
Oxalic acid and all oxalates.
Poisonous disinfectants.
Strophanthus tincture.
Sulphate of zinc.
Sugar of lead.
Ferricyanide of potassium.
Sulphocyanide of ammonia.
Preparations of tartar emetic.
Preparations of chloral hydrate.
Sulphonal.

Tasmania.

THE POSITION OF PHARMACISTS in Tasmania is likely to be threatened from an unexpected quarter. The interests of pharmacists have been well served of late years by avoiding all agitation which shall bring before Parliament the Medical Practitioners Act, which has been in operation for something like three generations. Under this Act pharmacists receive licences to vend medicines. The Court of Medical Examiners, the authority administering the Act, has recently declined to register in Tasmania a homeopathic physician holding diplomas from the Boston University of Medicine. After refusal without reasons, the matter was submitted to the Solicitor of the Court, who said that the by-law of 1849 giving authority to recognise foreign diplomas was *ultra vires*, and even if not, Dr. Gould had not complied with the conditions of the by-law, and that

the Boston degree would not be recognised in England as equivalent to the M.R.C.S. Since the Act was passed medical science has made great advances, and the Attorney-General said the time has arrived to review the legislation dealing with this question and put it on modern lines. Pharmacists must therefore be whetting their weapons for a struggle in Parliament.

Victoria.

APPRENTICES to pharmaceutical chemists are expressly recognised by Clause 8 of the Factories and Shops Act Amendment Bill introduced on August 11. Pharmaceutical chemists are to be allowed to charge a premium, but this is forbidden to all other classes of trade. As the Act now applies to shop-assistants, a fresh clause may have some effect, for power is now taken to appoint wages boards to deal with more than one class of trade. That is to say, the same board will deal with steel-moulding and iron-moulding, and possibly one board might be appointed to deal with the hours and remuneration of assistants in different classes of shops.

Canadian News.

(From the "C. & D." Correspondent.)

CANADIAN PROPRIETARY MEDICINE ACT.—"Morphine and its preparations, and opium, its preparations and derivatives," have now been added to the schedule to the Proprietary or Patent Medicines Act by an Order in Council dated August 17.

PERSONAL.—Mr. Milton L. Hersey, analytical chemist, of Montreal, has given \$10,000 to endow a fellowship in the department of chemistry of the Kingston School of Mining. The donor, in providing the endowment fund, says that it will form the basis wherewith poor students may be assisted to obtain a practical education. Mr. Hersey is now one of Canada's rich men, having profited largely by the wealthy discoveries in the Cobalt district.

THE USE OF WOOD ALCOHOL in pharmaceutical preparations is forbidden by the Federal Inland Revenue Act, and is dealt with in Bill 143 of the amended Federal Inland Revenue Act. Severe penalties are incurred by anyone purifying methylated spirit or using it in medicinal preparations. The restrictions are similar to those in force in Great Britain, but the interest in the matter is in the fact that an official caution has been issued to druggists by the Council of the Pharmaceutical Association of Quebec, in which the penalty clauses are quoted.

MEDICAL MEN MEET.—The Ottawa District Medical Association held their annual meeting at Hull recently. Dr. H. Lesueur, of Montreal spoke on x rays and their application to medical science. He advocated the importance of the French medical men forming a solid organisation. Up to 1902 practically no organisation on their part had existed, and it was essential, he said, that they should make a strong effort to attain this end in order that they might take their place among the Associations of the Dominion. The Association passed a resolution supporting the Executive of the College of Physicians and Surgeons of Quebec in its efforts to establish a provincial board of examiners. Dr. E. S. Aubrey, of Hull, was re-elected President.

INDUSTRIAL ALCOHOL.—A joint meeting of the Canadian Pharmaceutical Association and the Ontario College of Pharmacy District Association was held on September 4, at which there was an oratorical duel between Mr. Henry Watters, of Ottawa, on the one hand and Mr. D. W. Bole, M.P., of Winnipeg, on the other, as to the advisability of carrying on a campaign for cheap alcohol to be used exclusively for industrial purposes. The opinion of the meeting appeared to be slightly in favour of the undertaking of the campaign, but the utterances of Mr. Watters met with considerable applause also. The election of officers resulted as follows: President, Mr. G. E. Gibbard, Toronto; Vice-President, Mr. G. A. Burbidge, Halifax; Secretary-Treasurer, Mr. J. E. Tremble, Montreal. The next meeting of the Association will be held at Banff, N.W.T.

THE ANNUAL MEETING of the Canadian Pharmaceutical Association was held at Toronto from September 1 to 4. The various provinces of the Dominion were well represented, and a number of important matters were discussed. The desirability of reciprocity between the provinces with regard to diplomas was the subject of a resolution adopted at the final session. The druggists also put themselves on record as being in favour of the standardisation of the education given in the pharmaceutical colleges of the Dominion. Mr. W. C. Polson, of Kingston, said, "We are turning out too many druggists in Canada, and it would be better if every college of pharmacy in the Dominion would close for ten years." The discussion in the course of which Mr. Polson made this statement arose on a report by the Commercial Interests Committee, which urged that some definite action should be taken with regard to the prevention of "cutting" in the retail prices of patent medicines, and "that every retailer should refuse to handle goods the prices of which are not protected, and then the manufacturers would be brought to their senses." Mr. J. E. W. Lecours, of Montreal, suggested that some system should be adopted in regard to patent medicines similar to that in the photographic business. They definitely fixed the retail prices of their goods, on the handling of which, he claimed, there was a profit of 25 per cent. Mr. A. W. Gourlie took issue as to the amount of profit on photographic goods and supplies, saying that in some cases it was 50 per cent. Finally the Convention adopted the recommendation that the wholesale prices of articles selling at 25c., 50c., and \$1 each, should be \$2, \$4, and \$8 per dozen. The adoption of the Canadian Formulary was another matter advocated. Mr. Leonard, of Winnipeg, took exception to manufacturing firms supplying embryo medicos with nice cases of samples, while Mr. J. Hargreaves complained that the doctors had really little knowledge of materia medica.

American Notes.

(From the "C. & D." Correspondent.)

A RUMOUR is current in New York to the effect that the business of Messrs. Sharp & Dohme, manufacturing chemists, Baltimore, has been acquired by a well-known London firm. [The rumour is false and entirely devoid of foundation, we learn on inquiry of the principal of the London firm.—EDITOR, C. & D.]

NEW PRE-REQUISITE LAW.—It is a matter of more than usual importance that the State of Louisiana has enacted a "pre-requisite law," compelling pharmaceutical proprietors of the future to be graduates from recognised colleges of pharmacy. Assistants are not included in this restriction. New York, Pennsylvania, Wisconsin, and Hawaii have similar laws, so that Louisiana is the fifth on the list. Ultimately a thorough course in a college of pharmacy will be insisted upon in every State in the Union.

THE DAY OF THE HEADACHE-POWDER seems to be waning. At any rate, the food and drug authorities all over the country are getting after it "with a sharp stick." The Pure Food Commissioner of Nebraska has begun the prosecution of druggists who sell headache-powders containing acetanilide and other potent coal-tar products without labelling the packages as to their contents. Eleven druggists in one town have been arrested. Much the same action has been taken in other States throughout the country.

"ENFLEURAGE GREASE."—In refusing a claim filed by Euler & Robeson, of New York, the Board of General Appraisers have decided that floral odours which have been extracted separately and compounded before importation cannot be admitted free of duty under the tariffs provision for "enfleurage grease." It appeared from the testimony that other substances were added to the odours, tending to give them a new and different character. Under these circumstances the Board say that the combination is no longer "enfleurage grease" within the meaning of that term as used in the tariff. It is held dutiable under the provision for essential oils, with a tax of 25 per cent.

Contracts.

Chard Board of Guardians.—Mr. L. N. Burch, Chard, drugs, etc.

Burslem Board of Guardians.—The Sanitas Co., Ltd., London, for disinfectants.

Eton Guardians.—Messrs. Griffiths & Walden, for the supply of drugs for six months.

Darlington Board of Guardians.—Messrs. Parkin, Ness & Co., Quebec Street, Darlington, disinfectants.

Whitechapel Board of Guardians.—Messrs. John Knight & Sons, Ltd., Silvertown, for soap, at 170*l.* 5*s.*

Hemsworth Board of Guardians.—Mr. G. Hodgson, chemist and druggist, Hemsworth, for drugs.

Doncaster Board of Guardians have appointed Mrs. M. A. Hart, 3 Cemetery Road, as chemist for a year.

Reigate Board of Guardians.—Mr. W. H. Fowler, Ph.C., 38 Station Road, Redhill, for the supply of drugs.

Epsom Board of Guardians.—Messrs. Ingham & Co., chemists, Ormonde Parade, Epsom, for the supply of drugs.

Kendal Board of Guardians.—Mr. G. Vogt, chemist and druggist, 4 Gandy Street, Kendal, for druggists' sundries.

Richmond-on-Thames Board of Guardians.—Messrs. Corbyn, Stacey & Co., London, E., for drugs at 13*l.* 11*s.* 1½*d.*

Cambridge Board of Guardians.—Messrs. Moss & Palmer, 210 Mill Road, Cambridge, appointed chemists for six months.

Runcorn Union.—Mr. J. H. Weston, chemist and druggist, Devonshire Buildings, Runcorn, for drugs, drysaltery, and disinfectants for the half-year.

Sheffield Board of Guardians.—Messrs. Burgoyne, Burdidge & Co., London, E.C., for drugs and sundries for the Union dispensaries during the ensuing half-year.

Stepney Board of Guardians.—Messrs. F. J. Hunt & Co., Stratford, for soap, at 107*l.* 4*s.* 3*d.*; Messrs. Krohne & Sesemann, Whitechapel Road, London, E., for surgical appliances.

Worcester Board of Guardians.—Messrs. A. J. R. Swanson, 59 St. Johns; W. H. Hammond, 35 Barbourne Road; and F. J. Hall, 27 Broad Street, chemists and druggists, appointed chemists for six months.

Liverpool Board of Guardians.—Messrs. Evans Sons Lescher & Webb, Ltd., druggists' sundries; Messrs. R. Sumner & Co., Ltd., drugs, etc.; Messrs. J. & J. Taylor, drysaltery; Messrs. Jas. Mellor & Sons, methylated spirits, for six months.

Bedford Board of Guardians.—Mr. J. D. Jones, chemist and druggist, 115 Midland Road, Bedford, appointed chemist for six months; Mr. A. Wyatt, chemist and druggist, 31 Tavistock Street, Bedford, for drugs; and Messrs. Johnson & Co., 26 High Street, Bedford, disinfectant fluid at 2*s.* 7*d.* per gal.

Cannock Board of Guardians.—Mr. T. W. Garland, Ph.C., Cannock: Dust-combs, 5*s.* a dozen; clinicals, 1*s.* 9*d.* each; fullers' earth, 3½*d.* per ¼*lb.* box; castor oil, 6*s.*; cod-liver oil, 6*s.* 6*d.*; turpentine, 3*s.* 4*d.* per gal. Mr. A. E. Fereday, chemist and druggist, Bridgtown: Dressing-combs, 5*s.* 6*d.* a dozen; toothbrushes, 6*s.* a dozen; feeding-bottles, 6*s.* a dozen; cotton wool, 1*s.*; lint, 1*s.* 4*d.*; Jeyes' fluid, 4*s.* 2½*d.*, in drums; yellow brimstone, 1½*d.* per *lb.*; methylated spirit, 2*s.* 8*d.* per gal.

Havant Board of Guardians.—Six months' supply: Messrs. Williams & Burridge, chemists, Havant—absorbent wool, 10*d.* per *lb.*; boric crystals, 5½*d.* per *lb.*; carbolic lotion, 1*s.* 2½*d.* per gal.; cough-mixture, 2*s.* 3*d.* per gal.; boric lint, 1*s.* 2½*d.* per *lb.*; surgical tow, 5*d.* per *lb.*; medical turpentine, 4*s.* per gal. Messrs. Lankester & Crook, Havant—boric powder, 5½*d.* per *lb.*; castor oil, 10*d.* per pint; cod-liver oil, 10*d.* per pint; carbolic oil, 1*s.* 1*d.* per pint; camphorated oil, 1*s.* 9*d.* per pint; cotton-wool, 10*d.* per *lb.*; eucalyptus oil, 1*s.* 9*d.* per pint; liquorice-powder, 8½*d.* per *lb.*; quinine, 18*s.* 8*d.* per *lb.* Mr. Carr—ether, 3*s.* 6*d.* per pint. Mr. P. P. Davies, chemist and druggist, Havant—lint, 1*s.* 3*d.* per roll; morphine, 5*s.* 6*d.* per oz.; mist. alba, 1*s.* 11*d.* per gal.; sulphuric ether, 2*s.* 6*d.* per pint; tow, 8*d.* per *lb.*

Personalities.

MRS. R. L. GIFFORD, wife of Mr. R. L. Gifford, Ph.C., Blackburn, has been appointed Joint Secretary to the local Women's Liberal Association.

MR. A. E. HOLDEN, of Messrs. Fairchild Bros. & Foster, London, returned by the *Lusitania* on Tuesday after his annual vacation in Canada and New York.

ALDERMAN C. A. STEWARD, chemist and druggist, Worcester, was a directing official at the 185th meeting of the Triennial Musical Festival of the Three Choirs held in Worcester Cathedral during last week.

THE funeral of the late Mr. J. W. Waddington, chemist and dentist, Hungerford, took place at St. Saviour's Church, Eddington, on September 14. Many beautiful floral emblems were contributed by the mourners.

MR. WILLIAM PARTRIDGE, manager of the Easy Row chemical-apparatus department of Messrs. Southall Bros. & Barclay, Ltd., secured six places with his autochromes at the London exhibition of the Royal Photographic Society.

M. ALBERT DERNEVILLE, a well-known Belgian pharmacist, who is President of the Chambre Syndicale de Pharmacie and of the Société Royale de Pharmacie de Bruxelles, 66 Boulevard de Waterloo, Brussels, is on a visit to this country. He is staying at the Hotel Cecil, Strand, W.C.

MR. ANDREW PEARS, J.P., the President of the Pears Athletic Club, held in connection with the Isleworth factory of Pears' soap, has presented the club with the grounds of about four acres, with the buildings (valued at about 5,000*l.*), on which their games and sports are held. The thanks of the club to Mr. Pears are to be engrossed on an illuminated address.

VISITORS to the exhibition of the Royal Photographic Society at the New Gallery, Regent Street, London, W., should notice a very fine enlargement, about 24 by 18 in., which has been made from a negative by Mr. John Cleworth, the well-known pharmaceutical photographer of Manchester. The negative was a fine example of focal plane-shutter work, and the enlargement is well worth seeing.

Bankruptcy Report.

Re GEORGE H. WAUGH, L.R.C.P., Grosvenor Road, Belfast, Pharmaceutical Chemist and Medical Practitioner.—The appeal to Judge Fitzgibbon from the decision of the Registrar of the Belfast Bankruptcy Court was heard on September 21. The point at issue was whether part of the furniture which was claimed by Mrs. Waugh should be sold for the benefit of the creditors. The furniture had been obtained by Mrs. Waugh from a hire-purchase company, counsel for which contended that the furniture was not at the disposal of the bankrupt. The Registrar had held (*C. & D.*, August 29, p. 347) that the bankrupt was the reputed owner as far as the public were concerned, and the Judge upheld this decision. Counsel intimated that the case would be taken to the Court of Appeal.

Deed of Arrangement.

LODGE, FREDERICK, Avenue Road, Crossgates; ARTHUR LODGE, 11 Richmond Avenue, Headingley, Leeds; and TOM LODGE, 3 Harleck Crescent, Dewsbury Road, Leeds, and trading at Crown Works, Smithson Fold, Meadow Lane, Leeds, as Frederick Lodge & Sons, wholesale druggists and drysalters.—Trustee, G. Fillingham, 16 East Parade, Leeds, chartered accountant. Dated September 11; filed September 16. Liabilities unsecured, 1,346*l.*; estimated net assets, 1,410*l.* The following are creditors: Midland Vinegar Co., Birmingham (11*l.*); Turner & Wainwright, Ltd., Brighouse (16*l.*); Fry & Sons, Ltd., Bristol (59*l.*); Carr & Co., Carlisle, (15*l.*); Buchanan Bros., Glasgow (50*l.*); Cambrian Vinegar Co., Ltd., Leeds (16*l.*); B. Clark & Nephews, Leeds (15*l.*); Goodall, Backhouse & Co., Leeds (113*l.*); Evans, Sons & Co., Liverpool (37*l.*); Lever Bros., Ltd., Port Sunlight (10*l.*); Raines & Co., Ltd., Stockton-on-Tees (14*l.*).

New Companies and Company News.

ALLAN & SONS, LTD.—Capital 1,000*l.* Objects: To carry on the business of makers of artificial teeth, eyes, and limbs. Private company. Registered office, Royal George Mills, King Edward Street, Macclesfield, Ches.

EAST MOORS CHEMICAL CO., LTD.—Capital 5,000*l.*, in 1*l.* shares. Objects: To take over the business of chemical-manufacturers carried on by C. E. Peel and E. M. Peel at the East Moors Chemical-works, Lewis Road, East Moors, Cardiff, as C. E. Peel & Son.

BOGNOR CRYSTAL AERATED WATERS, LTD.—Capital 200*l.* Objects: To acquire the business of C. E. Dowell, Bognor. Private company. The first directors are C. E. Dowell and J. L. Sampson. Registered office, 23 Ravenscourt Park, Hammersmith, W.

POCKET SYPHONS, LTD.—Registered in Guernsey. Capital 75,000*l.*, in 1*l.* shares. Objects: To acquire all rights to manufacture and deal with the French Patent No. 56,585, described as "Super Syphons." The first secretary is Mr. P. Carparis, Finsbury Pavement House, London, E.C.

ELIJAH HARRISON & CO., LTD.—Capital 7,500*l.* Objects: To acquire the business carried on by J. S. Goold at Liverpool as Elijah Harrison & Co., manufacturers of and dealers in oil, chemicals, etc. Private company. J. S. Goold and A. Goold are permanent managing directors.

W. R. CAMERON, LTD.—Capital, 250*l.* Objects: To acquire the business of chemists, druggists, photographers, dealers in photographic requisites, etc., carried on by W. R. Cameron, Accrington. Private company. W. R. Cameron, chemist and druggist, is permanent managing director. Registered office, 100 Abbey Street, Accrington.

CITEX FIRE-EXTINGUISHER CO., LTD.—Capital 2,500*l.*, in 1*l.* shares. Objects: To acquire from F. Rocmer, of Stuttgart, a licence to manufacture and sell in the United Kingdom and British Colonies certain inventions relating to a chemical fire-extinguisher and a chemical cartridge connected therewith, known in Germany as the "Radikal." Private company. The first directors are: F. M. Russell, Junction Works, Willesden, N.W.; R. Dalmer, 18 Luxemburg Gardens, Brook Green, W.; and J. L. Rominger, 46 Queen Victoria Street, E.C.

SOCIÉTÉ D'INVENTIONS HYGIENIQUES ET DE PUBLICITÉ MÉDICALE, LTD.—Capital 20,000*l.*, in 4,950 ordinary shares of 4*l.* each, and 4,000 founders' shares of 1*s.* each. Objects: To edit and issue publications relating to pharmacy, hygiene, medical or surgical appliances, instruments or apparatus, to advertise pharmaceutical and chemical articles of every description, and to buy, sell, manufacture, refine, import, export, and deal in such articles or any other articles convenient to be sold therewith. Registered office, 3 East India Avenue, E.C.

PEARSON'S SOAP-WORKS, LTD.—Capital 100*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturers of and dealers in soap, patented articles, chemicals, dyes, dyewares, drysalters, perfumes, etc. The first subscribers are: W. E. Pearson, 15 Elm Street, Gray's Inn Road, W.C., managing director, with ninety shares; and J. F. Gibbs, 16 Finsbury Circus, E.C., woolbroker, with ten shares. Private company. The first directors are W. E. Pearson and J. F. Gibbs. Registered office, 15 Elm Street, Gray's Inn Road, W.C.

SADLER & CO., LTD.—The report of this Middlesbrough firm of manufacturing chemists and tar distillers, for the year ended June 30 last, shows an available balance of 26,241*l.*, which includes the sum of 3,014*l.* brought forward. It is proposed to appropriate it as follows: Interest on debentures and prepaid shares and for income-tax 5,010*l.*, dividend at the rate of 3½ per cent. per annum 5,916*l.*, directors' and auditors' fees 850*l.*, depreciation of plant 5,000*l.*, and reserve fund 5,000*l.*, leaving a balance to be carried forward of 4,464*l.* A sum of 4,960*l.* has been provided out of revenue for the renewals and maintenance of works and properties. Debentures to the value of 4,900*l.* have also been paid off during the year.

THE GAROET CINCHONA CO. OF JAVA.—The report of the working of this company for the past year states that prices of bark were low throughout, 3.80 cents per unit being obtained for middling bark containing 3.90 per cent. of quinine sulphate, as against 5 cents for 3.74 per cent. bark in 1906. The crop amounted to 56,730 kilos.; 4,203 kilos. remained over from the previous year and 4,427 kilos. of the 1907 crop was still held at the end of the year, so that the total sales for the year amounted to 56,954 kilos. Of this 48,462 kilos. was sold

locally, and realised 14,443 florins, while the residue, sold at the July Amsterdam sales of the present year, realised 2,000 florins. The net receipts from the sales were 10,125 florins, and the cost of the undertaking in Java 13,220 florins, so that the loss on the year's working amounted to 3,092 florins, from which is to be deducted a balance on 1906 of 81 florins, leaving a net loss of 3,011 florins.

MORTGAGES AND CHARGES.—Debentures registered: *British Turpentine Corporation, Ltd.*, Hayes, Middlesex. 4,000*l.* second mortgage debentures created by resolution, September 13, 1908. Present issue 1,000*l.*, charged on undertaking.—*A. J. Caley & Son, Ltd.*, mineral-water manufacturers, Norwich. Mortgage for 16,000*l.*, dated September 1. Holders: Norwich Union Life Insurance Society. A second charge, also dated September 1, to secure 14,000*l.* Holders: H. G. Barclay, H. Birkbeck, and G. F. Buxton, of Norwich.—*Charles Massey & Son, Ltd.*, chemists, Manchester. 1,500*l.* of 20,000*l.* created March 15, 1907. Previously issued, 10,100*l.*—*Kilshaw Chemical Co., Ltd.*, Hookey Hill. 100*l.*, part of 1,000*l.* created June 18, 1907. The following do not refer to fresh issues, but to total amounts of mortgages and charges outstanding on July 1 and now filed according to law: *Anglo-Chilian Nitrate and Railway Co., Ltd.* Mortgage or charge, 1896, securing 436,100*l.*—*Borax Consolidated, Ltd.*, London. Trust deed, 1899, securing 1,000,000*l.*, first mortgage debenture stock.—*J. F. Edisbury & Co., Ltd.*, mineral-water manufacturers, Wrexham. Charge, 1907, securing 1,500*l.*—*Hunt & Son, Ltd.*, mineral-water manufacturers, Great Yarmouth. Mortgage, 1903, securing 900*l.*—*Martyn's Stores, Ltd.*, chemists, Wolverhampton. Mortgage on freeholds at Wolverhampton and Bilston, 1897 and 1901, securing 4,711*l.* 5*s.* 1*d.*—*John Nicholson & Sons, Ltd.*, chemical manufacturers, Leeds. Trust deed, 1894, securing 30,000*l.* on first mortgage debentures.—*Ross, Ltd.*, lens manufacturers, London. Mortgage, 1904, securing 2,050*l.*—*H. G. Sanders & Son, Ltd.*, collapsible tube manufacturers, London. Mortgages, 1899 and 1905, and further charge 1905, securing 6,400*l.*—*Weymouth Soda-water Co., Ltd.* Mortgages or charges, 1892 and 1901, securing 500*l.*—*George Wilton, Son & Co., Ltd.*, druggists, Doncaster. Mortgages, 1888 and 1897, securing 4,000*l.*—*Sydney Standing Baiss and Arnold Baiss and Baiss Bros. & Stevenson, Ltd.* Mortgage of 5,641*l.* 18*s.* 6*d.*, dated January 31, 1908, to the London Life Association upon the security of the company's leasehold premises, 4 Jewry Street, London, E.C., being a modification of a security dated October 18, 1894, which was taken over by the company on its formation.—*Humphrey Davy & Son, Ltd.*, wholesale druggists, Rotherham. Mortgage, 1894, securing 600*l.*—*Houghtons, Ltd.*, photographic-apparatus manufacturers, London. 18,600*l.*—*Jones Bros. (West Bromwich), Ltd.*, chemical manufacturers. 283*l.* 13*s.* 7*d.*—*Thomas Seager & Co., Ltd.*, mineral-water manufacturers, Cheltenham. 500*l.*—*Shelvey & Co., Ltd.*, mineral-water manufacturers, Brighton. 2,000*l.*

Gazette.

Partnerships Dissolved.

GRATTAN, M. H., and WILSON, G. R., physicians, etc., Ongar, Essex, under the style of Grattan & Wilson.

HANSEN, N. C. R., ELLIOTT, G., and SAMUEL, H. C., general medical practitioners, Walthamstow, Essex, under the style of Drs. Hansen, Elliott & Samuel; so far as regards G. Elliott.

Information Wanted.

Inquiries for the names and addresses of manufacturers, or other trade information, not traceable by reference to the advertisement-pages of "The Chemist and Druggist" and the "C. & D. Diary," or not filed in our private register, are inserted here free of charge. Postcard or other replies to any of the subjoined inquiries (addressed to the Editor "The Chemist and Druggist," 42 Cannon Street, London, E.C.) will be esteemed.

- 193/1. Wholesale dealers in "Jumping Beans."
- 52/22. Agents in London for hard rubber trusses?
- 55/41. Where can Tyson's drink-cure be obtained?
- 54/54. Who are the makers of Anker's Pain-expeller?
- 58/31.—Makers of Lintderm Zinci et Ichthyol (Arnfield).
- 54/71. Where can transfers to imitate stained glass be obtained?
- 58/37. Makers of, or agents for, Graefenberg's pills, Neurostone, and Commonsense rat-exterminator.

Birth.

DRUMMOND.—At Oldmore Cottage, Keith, on September 11, the wife of W. B. Drummond, chemist and druggist, of a daughter.

Marriages.

COLPITTS—LUNAN.—At the South U.F. Church, Banchory, on September 16, by the Rev. William Cowan, Thomas Colpitts, wine and spirit merchant, Durham, to Elizabeth Helen, second daughter of Mr. Alexander Lunan, chemist, Banchory.

DAVIES—DAVIES.—At Pontypridd, William Oswald Davies, chemist and druggist, 15 The Arcade, Pontypridd, to Nellie, daughter of Mr. Davies, Carmarthen Stores, Pontypridd.

DWYER—RYAN.—At St. George's Church, Dublin, on September 16, by the Rev. Denton C. Green, B.D., James T. Dwyer, pharmaceutical chemist, youngest son of the late Mr. Michael Dwyer, Farnans, Queen's Co., to Sophia, daughter of the late Mr. Thomas Rigg, Ryan, Kendal.

GRICE—SYMINGTON.—At Dunscore Parish Church, on September 15, by the Rev. Alex. Masterton, assisted by the Rev. S. Dunlop, M.A., B.D., Irongray, and the Rev. J. Marshall Pryde, M.A., B.D., Ruthrieston Parish Church, Aberdeen (brother-in-law of the bride), Walter T. Grice, F.C.S. (of Messrs. Smith, Stanistreet & Co., Calcutta), lieutenant-colonel, commanding 1st C.V. Rifles, Calcutta, to Helen, younger daughter of Mr. and Mrs. Archibald Symington, of Allanton, Auldirth, Dumfriesshire.

HARROLD—LAIRD.—At the Palace Hotel, Aberdeen, on September 15, by the Rev. John A. Irvine, B.A., William Malcolm Harrold, chemist and druggist, Forres, to Isabella, only daughter of the late Mr. Daniel Laird, Savings Bank, Aberdeen.

HUGHES—SEILER.—At the Wesleyan Church, Cathcart, Cape Colony, on August 25, by the Rev. David Moore, William Henry Hughes, chemist and druggist, Cathcart, to Mary, youngest daughter of the late Mr. John Seiler, of Cathcart.

ORME—GREENE.—At St. Andrew's Church, Portslade, on September 16, Herbert Gaywood Orme, chemist and druggist, younger son of Mr. L. J. Orme, Brighton, to Florence, younger daughter of Mr. S. Greene, Portslade, Brighton.

PARRITT—COLLINS.—At Nelson on September 16, by the Rev. Father Smith, Reginald Parritt, Blackburn, to Edith, only daughter of the late Mr. Martin Collins, chemist and druggist, of Manchester Road, Nelson.

YATES—HODGSON.—At Park Street Wesleyan Church, Blackpool, on September 17, by the Rev. H. J. Sugden, assisted by the Rev. T. Hackett, Joseph Green Yates, eldest son of Mr. Daniel Yates, chemist and druggist, Sunny Bank, Accrington, to Nellie, daughter of Mr. T. Hodgson, Blackpool.

Deaths.

BASSETT.—At Hackney, on September 14, Mr. Robert Bassett, after a sudden and short illness, aged seventy-two. Mr. Bassett was the veteran traveller for Messrs. Edward Cook & Co., Ltd., soap specialists, Bow, having been with the house without a break since 1860. The company was represented at the interment in Abney Park Cemetery by Mr. Thos. Alex. Cook, managing director, and Mr. H. Frank Cook.

BOLTON.—At Rawdon House, Mount Pleasant Road, Hastings, on September 9, Mrs. Caroline Bolton, wife of Mr. Thos. Bolton, chemist and druggist, late of Tenterden, Kent, aged sixty-seven.

CART.—At Scarborough, on September 5, of appendicitis, Mr. John Trevor Cart, B.Sc., A.I.C., pharmaceutical chemist, aged twenty-eight. Mr. Cart obtained the junior Bell scholarship from Muter's School of Pharmacy in 1902, and as a result of him passing both Minor and Major during

the first year of the scholarship, the permission to enter for examination before completing the full Minor course was stopped. After passing the Major he became demonstrator at the "Square," leaving there to go to Messrs. Hopkin & Williams, Ltd. While there he passed the examinations for the B.Sc. and A.I.C., and left the ranks of pharmacy to enter (on his firm's nomination) the service of Messrs. C. A. Parsons & Co., Newcastle-on-Tyne, as analyst, where he assisted Mr. Parsons in the chemical side of his researches. Mr. Cart's death took place while he was on holiday. The operation which had to be performed was exceptionally complicated, and peritonitis supervened. A versatile pharmacist, strong on the chemical and mathematical side, his loss will be felt by his many friends in pharmaceutical circles, with whom his unassuming manner and kindly actions, especially among his fellow students and pupils, had deeply ingratiated him.

FASSETT.—At 10 Canfield Gardens, London, N.W., Mr. William Henry Fassett, aged sixty-two. Mr. Fassett was one of the best known members of the American Colony in London, being a member of the firm of Fassett & Johnson, import and export merchants, 31 and 32 Snow Hill, E.C., the agents for Messrs. Seabury & Johnson and other American firms. He was a native of Albany, N.Y., where he was born on October 3, 1845, and claimed descent from a line of business men of good reputation in that city. He graduated at the Union University of Albany, and carried on business at Albany until 1880, when, after a brief residence in New York City, he came to London to begin the long career of successful business in this country which continued up to the time of his death. He came here as representative of the Pond's Extract Co., and in 1885 added to his business the British representation of "Sapolio" and that of Messrs. Scott & Bowne. He gave up the Pond's Extract business in the following year, and in 1890 founded the firm of Fassett & Johnson, in partnership with Mr. L. O. Johnson, who, we understand, will continue the business. Mr. Fassett was noted for his great social gifts and charm of manner, and his loss is keenly felt by all who knew him. His death was sudden, for although he had been ailing for some time, and was under medical care, there had been nothing to give acute anxiety to his friends, and death was due to heart-failure. Mr. Fassett was well known in business circles on both sides of the Atlantic, and was greatly liked and respected. He was a trustee of the Drug-trade Appeal Fund, and had taken a keen interest in anti-cutting movements, but did not see eye to eye in this question with those who founded the P.A.T.A., nevertheless, he was on excellent terms with them.

HODSON.—At The Cross, Elland, Yorks, on September 20, Mr. George Hodson, chemist and druggist, aged sixty-two. He served his apprenticeship with Mr. W. Cantrell, chemist and druggist, Elland, and succeeded to the business in 1866. Mr. Hodson had held every lay office in the Wesleyan Church.

INGER.—At King's Heath, Birmingham, on September 8, Mr. George Edward Inger, chemist and druggist, aged fifty-eight. Mr. Inger was a native of Nottingham, and had managed the King's Heath branch of Mr. C. Thompson's business at 157 High Street for eight years.

JOWETT.—At Arden Craig, Grassendale, on September 23, Mr. William Hall Jowett, J.P., F.C.S., chemist and druggist, of Messrs. Clayton & Jowett, Ltd., manufacturing chemists, Concert Street, Liverpool, aged forty-nine. Mr. Jowett had had an attack of typhoid fever and was making good progress when pneumonia supervened, and he succumbed on Wednesday morning. Mr. Jowett was a native of Cumberland, and served his apprenticeship with Mr. John W. Clayton, pharmaceutical chemist, who was then in the retail business at Blackburn. He passed the Minor examination in October 1881, and continued with Mr. Clayton, who was then beginning the soluble-essence business, and a few years later they joined in partnership and removed their manufacturing business to Liverpool. There Mr. Jowett, six years ago, became a member of the City Council, of which he was an alderman. He did not, however, lose touch with pharmacy and was generally present at the annual dinners of the Liverpool Chemists' Association. He leaves a widow and three sons.

NICHOLSON.—The death, at Richmond, Surrey, is reported of Mr. George Nicholson, F.L.S., ex-Curator of the Royal



Kew Gardens, aged sixty-one. Deceased, who was an authority on the classification of hardy shrubs and trees, became an Associate of the Linnean Society in 1886 and was also one of the first recipients of the Victoria Medal for Horticulture. Born at Ripon, Yorks, in 1847, he studied gardening in England and France, and in 1873 entered Kew Gardens as assistant curator. In 1886 he succeeded Mr. John Smith as curator, and in 1901 he retired owing to ill-health.

OSBORNE.—At 14 Wellington Square, Ayr, on September 16, Miss Elizabeth

Telfer Osborne, daughter of the late Mr. George Osborne, chemist, Sanquhar, aged sixty-six.

SLACK.—At West Bromwich, on September 22, Mabel Mary, wife of Mr. Bernard Slack, business specialist, Wolverhampton.

SONSTADT.—The death at Churchfields, Cheshunt, Herts, on July 5, has this week been reported of Mr. Edward Sonstadt, F.C.S., aged seventy-eight. Mr. Sonstadt, when in practice as a chemist, made communications to the Chemical Society, of which he had been a Fellow for thirty-four years.

Business Changes.

Properly authenticated business notices (not being advertisements) are inserted in this section free of charge if promptly communicated to the Editor.

BOOTS, LTD., are erecting new premises in Cannon Street, Dover, at an estimated cost of £2,844.

MR. DAVID LLEWELLYN, chemist and druggist, has opened a new pharmacy at Goodwick, a thriving Pembrokeshire centre.

MR. D. R. JONES, chemist and druggist, has removed from 160 Cathays Terrace to 148 Crwys Road, Cathays, Cardiff.

MR. F. LEWIS SMITH, chemist and druggist, has purchased the business of Mr. H. Jackson, at 75 Commercial Road, Hereford.

MR. H. JACKSON, Hereford, has taken over the business of Messrs. Douglas & Co., Ltd., chemists, at 281 Ladypool Road, Birmingham.

MR. C. A. COLES, chemist and druggist, of Romford, has purchased the business recently opened in the Old Road, Clacton-on-Sea.

MR. C. CATTELL, chemist and druggist, of East Dereham, has purchased the business of Mr. J. Hewitt, chemist and druggist, Harlow, Essex.

MR. D. S. ANDERSON, chemist and druggist, 72 Lancashire Hill, Stockport, has sold his business to Mr. E. G. Thompson, chemist and druggist.

The old-established medical hall of Messrs. S. C. Nicholl & Co., 43 Donegall Place, Belfast, has been taken over by Mr. J. A. Bingham, pharmaceutical chemist.

MR. JAS. INNES, chemist and druggist, 18 New Street, Ayr, has disposed of the business to Mr. Blane, having secured an appointment on the representative staff of Messrs. Burroughs Wellcome & Co.

MR. MORTEN DODGE, chemist and druggist, 139 Great Ducie Street, Strangeways, Manchester, has taken new premises at 1 Albert Square, near the Town Hall, and will enter into occupation there shortly.

MR. CARTER WHITE, F.C.S., formerly with Messrs. George Curling, Wyman & Co., has commenced business under the style of Carter White & Co., manufacturing and analytical chemists, 18 Old Swan Lane, Upper Thames Street, E.C.

Recent Wills.

THE LATE MR. ROBERT GATENBY, chemist and druggist, Bridlington, Yorks, left estate of the gross value of £2,773. 5s. 4d., of which £224. 0s. 1d. is net personalty.

MR. GEORGE BAXTER, pharmaceutical chemist, Crookes, Sheffield, who died July 7, left estate of the gross value of £3,509. 12s. 5d., of which £3,464. 18s. 1d. is net personalty.

MR. JOHN BRADLEY ELLISSON, Hoyland Common, near Barnsley, chemist and druggist, who died on July 23, aged seventy years, left estate of the gross value of £2,008. 12s., with £352. 13s. 7d. in net personalty.

MR. WILLIAM JAMES BENTLY, 485 High Road, Tottenham, N., retired chemist and druggist, who died on August 29, aged seventy-two years, left estate of the gross value of £568. 16s. 7d., with £494. 10s. 7d. in net personalty.

MR. HUMPHREY DAVY, of The Yews, Doncaster Road, Rotherham, Yorks, chemist and druggist, head of Humphrey Davy, chemists and oil merchants, of Bridgegate and High Street, Rotherham, and managing director of Messrs. Humphrey Davy, Ltd., of Masborough, manufacturing-chemists, and a native of Sheffield, who died on July 16, aged seventy-eight years, left estate of the gross value of £11,107. 4s. 7d., of which the net personalty has been sworn at £6,781. 15s. 4d. The testator left his business premises, Bridgegate, Rotherham (subject to any charge thereon), and the goodwill of his business as a chemist at Bridgegate and High Street, Rotherham, stock, and moneys in his business account at his bank to his sons Edward Josiah Davy and Percy Davy.

Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with Sir C. N. Dalton, K.C.M.G., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form No. 7, cost £2, obtainable through any money-order office.

(From the "Trade-marks Journal," September 2, 1908.)

"BRAND & Co.'s ESSENCE OF BEEF," label device in green and black; for beef-essence. By Brand & Co., Ltd., 74-84 South Lambeth Road, Vauxhall, London. 303,834.

"BAES," and label device; for toilet powder in Class 48. By Beeton & Co., 23 Henley Road, Ipswich, Suffolk. 301,702.

"CHARMEUR"; for perfumery. By Bayley & Co., 94 St. Martin's Lane, London, W.C. 304,605.

"157B," and label device; for Eau de Cologne. By Breidenbach & Co., 48 Greek Street, Soho Square, London, W. 304,754.

Label device; for Eau de Cologne bath-salts. By Parke's Drug-stores, Ltd., 65 Harwood Street, London, N.W. 303,653.

(From the "Trade-marks Journal," September 9, 1908.)

"ESCO," and label device; for goods in Classes 1 and 50. By Eadie-Douglas & Co., 22 St. John Street, Montreal, Canada. 299,039, 299,040.

"ECONOMIC," and label device; for ready-mixed paint in Class 1. By Storry, Smithson & Co., Ltd., Bankside Works, Sculcoates, Hull. 300,112.

"CLISEDO," and label device; for a medicine in Class 3. By the Snaith Chemical Co., Brandon Road, King's Cross, London, N. 298,547.

"METHYSAL"; for a medicine in Class 3. By W. Martindale, 10 New Cavendish Street, London, W. 303,967.

"EUSTENIN"; for medicines in Class 3. By Zimmer & Co., Darmstädterlandstrasse 46, Frankfurt-on-Main, Germany. 304,580.

"INDANA"; for a medicinal powder in Class 3. By Lilian Betts, 3 Lime Grove, Oxford Road, Manchester. 304,613.

"CELLOTROPINE"; for medicines in Class 3. By H. Finzelberg's Nachfolger, Andernach, Prussia. 304,700.

"VAR-SUMA"; for an ointment in Class 3. By the "Var-suma" Co., 58 Springfield Road, King's Heath, Birmingham. 304,831.

"MY GRANDFATHER'S," and picture; for medicines in Class 3. By Edmund Millward & Son, 64 Main Street, Cadoxton-Barry, Glam. 304,926.

"OSCOL"; for a medicine in Class 3. By Oppenheimer, Son & Co., Ltd., 179 Queen Victoria Street, London, E.C. 305,256.

"FINEPAROLEIN"; for resin oil. By Thomas Roden, 9 Craig's Road, Lisburn Lane, Liverpool. 304,376.

Trade Notes.

"LONDON WALL 4917" is now the telephone number of Mr. Fredk. Graf, 65 Fenchurch Street, London, E.C.

THERMOGENE.—An instructive announcement regarding autumn window-display terms is made in this issue by the Thermogene Co., Hayward's Heath, Sussex.

MENTHOL AND WINTERGREEN CREAM is a speciality of the Anglo-American Pharmaceutical Co., Ltd., 3 and 5 Frith Road, Croydon. It is known under the brand name of "Tubulette," and the price is protected under the P.A.T.A. scheme.

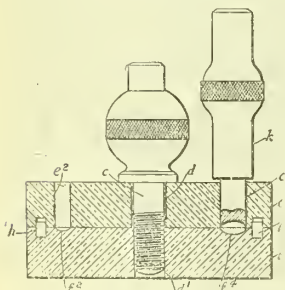
THE NATIONAL CASH-REGISTER Co., Tottenham Court Road, London, W., are anxious to make their cash-registers more widely known, and to effect this make an offer in our advertising columns this week.

SYPHON STOVES are deservedly popular with chemists for warming the shop. An advertisement of the patentees, Messrs. S. Clark & Co., Canonbury Road, Highbury, London, N., appears in this issue with an offer to send the new season's catalogue.

HOT-WATER BOTTLES may become seasonable at any time, so that chemists should see that their stock of these articles is sufficient. Messrs. Garrod, Higgins & Co., 5 Falcon Square, Aldersgate Street, London, E.C., make an announcement in this issue which will assist those who are renewing their stock of hot-water bottles.

CASCARA TABLETS.—A startling announcement in regard to cascara tablets is made on the back of the cover of this number by the Standard Tablet and Pill Co., Hove. The company state that they lose money in selling the tablets at the prices there advertised, but this should not prevent chemists from taking advantage of such an extraordinary offer.

"PIGMY" TABLET-MACHINE.—We have been conducting some experiments with a new tablet-machine, invented by Mr. Arthur McEwan, chemist and druggist, Cathcart, Glasgow, which have shown us that the apparatus possesses several good points. The sectional drawing given here is reproduced from the patent specification. The machine consists of two flat circular plates of nicked steel (*a* and *b*), 3 in. in diameter and $\frac{3}{4}$ in. thick, held together by the centre screw (*c*). In the upper plate there are four holes (*e*), $\frac{7}{16}$, $\frac{3}{8}$, $\frac{1}{4}$, $\frac{1}{8}$ in. in diameter, which form the dies. On the surface of the lower plate are four depressions (*f*) corresponding to the dies, also two dowel-pins (*h*), which fit sockets in the lower surface of the upper plate and serve to keep the plates in position with the dies exactly over their corresponding concavities. There are four punches (*k*), each with a concave face corresponding to and exactly fitting the dies. The machine is used



by placing the granulated material into the particular die and driving in the punch by means of a mallet. When the tablet has been compressed it is released by first loosening the centre screw and then rotating until an opening in the lower plate comes opposite the tablet, which is easily pushed out. This method of taking out the finished tablet is the greatest novelty in the machine. We have experimented with salol and had no difficulty in turning out well-finished tablets. It requires, however, practice to work the apparatus at any speed, but our experience is sufficient to convince us that it is a practical machine and a useful adjunct to the dispensing-counter. The "Pigmy" tablet-machine is sold at 30s. by the wholesale agents, Messrs. W. E. Taylor & Co., 58 Cadogan Place, Glasgow.

JOHN BELL & CROYDEN, LTD.—An interesting announcement is made in this issue regarding the future conduct of

the amalgamated business of John Bell & Croyden, Ltd., which next month is to be transferred to 50 Wigmore Street, London, W. The dispensing of foreign prescriptions is to be made a special feature of the business, and a department will be devoted to executing urgent orders at wholesale rates for pharmacists.

P.A.T.A. PRICES.—The additions to the protected list in September are D. & W. Gibbs' additional preparations; Mersyren; Parke, Davis & Co.'s additional preparations; Pyrazone 3-per-cent. solution; Wessler's model tooth-brush; Wolff & Sohn's perfumes, soap, and toilet preparations. The deletions from the list are Dodd's pills and dyspepsia tablets.

SOUTH AFRICAN TRADE is the special feature of the business of Messrs. John Murdoch & Co., Sussex House, 52 Leadenhall Street, London, E.C., who employ travellers in Cape Colony, Natal, Transvaal, and Orange River Colony, and act as London agents for many of the leading wholesale firms throughout South Africa. This gives Messrs. Murdoch unrivalled opportunities for pushing business in South Africa. Some of the goods which the firm ship are mentioned in their advertisement in this number.

The Week's Poisonings.

ELEVEN suicides and six misadventures are comprised in the fatalities with poison occurring during the week. Six of the compounds taken were unscheduled, in two cases the poison was not stated, and nine poisons were on the schedule, two of them being in the first part. John Durrant (46), chemist's assistant, Windsor Terrace, Beckton, died from the effects of cyanide of potassium, supposed to have been taken in mistake for bromide of potassium which he had been in the habit of taking.—Mark T. Woodcock (64), Lee, died from a cerebral poisoning, due to weed-killer taken with suicidal intent.—Thomas Flowers (33), a Hull dock labourer, committed suicide by taking laudanum. Mr. L. B. King, chemist and druggist, 104 Fountain Road, Hull, stated at the inquest he had sold deceased sixpennyworth of the drug.—A steward named John Hails committed suicide with laudanum at South Shields.—Sarah Fairclough, a widow of the Fylde district, took laudanum to end her life.—A Rotherham miner, named J. R. S. Mellors (37), poisoned himself with the same drug while temporarily insane. His brother Samuel, described as a chemist's assistant, proved serving deceased—who said it was for a bruise on the leg—with 1 oz. of laudanum.—Albert Uden (43), cab-driver, West Garton, was found dead in his bedroom with a partially empty bottle of carbolic acid at his side. Mr. Boor, chemist, Hyde Road, Manchester, stated that Uden purchased from him threepennyworth of the acid to kill vermin, and asked how it should be used for that purpose.—Henry J. Veale, newsagent, New Kent Road, London, S.E., drank a quantity of oxalic acid in rum, and died later in the day.—Muriel E. Dalley, daughter of a deceased medical man, ended her life by taking tincture of digitalis.—Percy M. Dweller, greengrocer, Kingston-on-Thames, committed suicide with an irritant poison, probably salt of lemon.—Gilbert C. H. Wintle (40), author, Temple Chambers, London, E.C., died by misadventure from an overdose of veronal.—Clarence A. Sowler, of Wolverhampton, took salt of lemon while travelling in a London train, and expired shortly after.—Marion Hazel (32), Plumstead, whose husband is in a critical condition in the infirmary, was found suffering from the effects of poison in a field at Erith, and died the same evening. The kind of poison taken was not stated.—John Hankin (48), joiner, Liverpool, drank naphtha in mistake for beer.—Beatrice Wainwright fell into a vat of muriatic acid at the Longford Wireworks, Warrington, and the acid getting into her lungs caused her death.—A man named Moss drank formalin from a jar in mistake for beer, and died in consequence. Catherine Miller (29), Cricklewood, took by mistake some tablets other than the phenacetin tablets she was accustomed to take, and she died from the effects of "corrosive poison and alcoholism."

Observations and Reflections.

By "Xrayser."

The Aberdeen Meeting

of the British Pharmaceutical Conference, so far as it may be criticised from an armchair five hundred miles away, may be described as a success in every respect except in that of its original purpose. Lovely surroundings, generous hosts, and a round of entertainments brought a breeze of happiness into a hundred or two lives, and it is fair to add that the occasion had stimulated a score of pharmaceutical intellects into a certain degree of activity. But a Pharmaceutical Conference implies conferring on pharmaceutical topics, and the conferring at Aberdeen was surely of the most perfunctory character. A comparison of the discussions at this meeting with those in the same city twenty-three years ago is not encouraging to faithful believers in the continued progress of pharmacy. A few questions (asked "just to set the ball rolling"), an occasional witticism, and the conventional compliments do not constitute discussion, and, these eliminated, a single column of the last issue would have sufficed for the report of the really informative comments which followed the papers. The Executive Committee of the Conference are themselves largely responsible for this condition of affairs. Year after year they cram into the diminishing few hours available for real conference a programme which they know cannot be dealt with. Consequently half the papers contributed are either not read at all or read in mere abstract, and from first to last there is an atmosphere of hurry and impatience which is fatal to anything approaching careful elucidation of any one topic. Two or three subjects, announced in advance and thoughtfully treated in concise written and spoken communications, would be infinitely more useful than two dozen undiscussed contributions, which, if they are of any value, would assuredly not be lost in these days of journalistic vigour.

The President's Address

invites some controversy. It is, indeed, pleasant to meet Mr. Robert Wright in this unfamiliar character. In matters of pharmaceutical research very few of us would be rash enough to challenge him. But if he chooses an arena where atmosphere, environment, training, and personal considerations inevitably engender prejudices, there is no reason why we should not closely scrutinise his conclusions, *ex cathedra* though they may be. The commentator has to remember, however, that Mr. Wright discusses pharmacy from the inside. He knows its business side, its scientific side, and its educational conditions from personal familiarity; and evidently he adds sound judgment to extensive experience. His one disadvantage is that he is an exceptional pharmacist—exceptional enough, at least, to have made his way to the honourable position which he has so lately filled. How this disqualifies him from taking an unbiased view of all current problems may be illustrated by his own anecdote of the antibilious pills. A pharmaceutical friend, said the President, was called upon to dispense some antibilious pills of quite ordinary composition, but they were to be X Y Z's pills. Not having this particular brand in stock, the pharmacist telephoned to the prescriber to ask if he might supply similar ones of his own make. The reply was, "Make one or two for the patient until those ordered can be obtained." The physician's prescription, it is suggested, was illegitimate, and his treatment of the pharmacist degrading. Now let us cross over to

The Other End

of that telephone. When that doctor prescribed X Y Z's pills he probably meant no sort of disrespect

to pharmacy. But he may have thought that his prescription might travel round a bit, and might not always get into the hands of exceptional pharmacists. He knew the X Y Z pills, and believed he could rely on their invariable uniformity. Moreover, he may have been favoured with some of those seductive reprints of pharmaceutical origin explaining to him how he ought to prescribe, and it is conceivable that he resented the advice. Lastly, it may have occurred to him, if he had a suspicious mind, that this modern desire of the pharmacist to imitate proprietary brands was not always prompted by disinterested motives. These may have been the considerations which accounted for the doctor's reply; and chemists will be well advised if they appreciate them. It is natural that we should sometimes recall and regret the days when our manipulative skill was more called upon, but there is no profit in a policy of resistance to the stream. The "hydra-headed demons" to whom the President had previously alluded are not thus hampered by inconvenient traditions. They are always ready to supply X Y Z pills or any other brand of goods if customers want them; and we are simply playing into their hands by contending against modern tendencies, even though we justify our conduct to ourselves by eloquent appeals to pharmaceutical ideals.

John the Apothecary

is an interesting discovery of Mr. Gilmour's, especially on account of the date, 1329, assigned to him. This was sixteen years before the earliest authentic allusion to an apothecary in English history. In 1345 Edward III. granted sixpence a day for life to Coursus de Gangeland, apothecary of London, in recognition of his services to him during his illness in his Scotch campaign. That was in 1336, and Edward on that occasion got as far north as Aberdeen, so that it is not impossible that John and Coursus may have met in that city then and created the first British Pharmaceutical Conference. Coursus evidently acted as a medical attendant to the King. There is no evidence that John did more than supply the drugs to embalm the body of Robert the Bruce. He may have actually directed the embalming. Probably both John and Coursus came from France originally, for dealers in drugs and spices were certainly called "apoticarii" in France in the previous century. They are expressly mentioned twice in a French Book of Trades ("Livre des Métiers") published in 1268, and the things they sold are catalogued by a certain Johannes de Garlandia, who wrote about 1250. This was not long after an edict of Emperor Frederick II., who established pharmacies in Italy on the advice of Jewish and Mohammedan councillors at his court. Frederick called the persons who compounded medicines "confectionarii," the places where medicines were sold "stationes," and the persons in charge of the shops "stationarii." In England and France the apothecaries became merged with the espiciers, spicers, and grocers, and were several centuries before they could liberate themselves from the hated alliance. It is curious that our predecessors should have been the originators of confectioners, stationers, and grocers, as well as of our humble selves.

The Bitterest Criticism

of a scientific society ever published was contained in a pamphlet published by Marat in 1791 entitled "La Charlatanisme Académique," directed against the Académie des Sciences, and particularly against Lavoisier, who had exposed his own pretensions to scientific fame. Marat described the Academicians of that period as "a society of vain men proud of meeting twice a week to drivel from comfortable armchairs adorned with fleurs de lys; or, if you like better, a fraternity of mediocrities, knowing little, but fancying themselves omniscient." They had assembled 11,409 times, compiled 330 eulogies, and approved of 3,905 compounds, such as hair-pomades, plasters for corns, bug-ointments, and such rubbish, in return for the immense sums which they had cost the State. And he suggested that money entrusted to them for special purposes had been divided among themselves. The Academy was suppressed the next year.

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Editorial Comments.

Confidence v. Controversy.

"WHY this sudden eagerness to close the controversy?" asks Mr. J. F. Brown, of Dover, in a letter which we publish this week. He is not alone in this questioning mood, and it is desirable that a straight answer should be given. It is simple enough—viz., that for the first time since 1880 the Government of the country is actively engaged with representatives of the Pharmaceutical Society of Great Britain in amending the law and in endeavouring to get a Bill through Parliament this Session. If the Bill fails to pass, the Pharmaceutical Society is not likely to get the support of the Government again; and as the stage of polemics is passed and the region of practical politics entered, the controversy has naturally narrowed down to conversations and correspondence between half-a-dozen people or so representing the thousands on all sides who hitherto have by letter and speech expressed opinions upon what should or should not be done. It is customary, when this point is reached by bodies of controversialists, for the constituents to remain inactive while their representatives are in counsel, but it has, perhaps, not been made sufficiently clear to chemists and druggists that every step taken by Mr. Glyn-Jones, as Parliamentary Secretary to the Pharmaceutical Society, is considered and agreed to by the higher officers of the Society and its advisers before it is actually taken. The position is, of course, eminently one for confidence in our leaders; equally it is one, from the journalistic point of view, which lends itself to criticism that might approach to the sensational, if a writer blinded himself to the fact that the negotiators are earnestly endeavouring to place the practice of pharmacy under statutory titles in a more satisfactory condition than it has been since the House of Lords declared that Sections 1 and 15 of the 1868 Act do not cover trading by companies. But we are convinced that the present opportunity for legislation may not recur, and that it is good for the craft that the best should be made of it. In this connection we call attention to the report of the meeting of the Federation at Aberdeen, where the position was fully explained privately, with the result that delegates from thirty-three towns passed a resolution which is essentially a vote of confidence in those who are endeavouring to improve the Government Bill. The meeting was the best that the Federation has ever held, and it served a most useful purpose in enabling those most intimately connected with the legislation to explain the posi-

tion. All that is asked is that chemists should assist to get the Bill through the second-reading stage, so that in Committee appropriate amendments may be submitted and considered. The best assistance in the circumstances is not a controversial attitude that would promote blocking of the Bill. If the Bill should be blocked in the second-reading stage, or flooded with undigested amendments in Committee, good-bye to reform of pharmacy in this Parliament or generation, and companies will continue to have free play with personal titles. Perhaps the gravity of the situation is not realised, so we may repeat that under the new provision of private companies any two persons may convert themselves into a corporate body and call themselves "chemists and druggists." This will in all likelihood be checked by legislation during the present Session, but without that legislation the iniquitous usurpation of personal distinctions without fulfilling the statutory requirements will not only continue, but will probably become more pronounced.

Patent Medicines in France.

THE Syndicat des Pharmaciens des Alpes-Maritimes, through its President, M. G. Pégurier, writes from Nice regarding a short paragraph published in the *C. & D.* "French News" of September 12. The point to which attention is drawn is that they are seeking for protection or facilities regarding (but not against) the introduction of foreign patent medicines into France. The petition addressed by the Syndicate to the French Customs Commission especially insists on the fact that when the importation of a foreign patent medicine into France is declared to be prohibited, it becomes (or rather may become) naturalised French by the following process. The foreign producer comes to an understanding with a pharmacist having the French diploma, makes a financial arrangement for disclosing the formula, and the foreign speciality continues to be sold in France in its original form. One objection to this is that the Treasury loses the Customs duties to which it would be entitled in the case of imported goods. On the other hand, certain pharmacists, having the exclusive dépôt for a prohibited remedy, arrange to have the containers and contents despatched to them separately by means of a false declaration, and thus manage to import the forbidden article on paying only a minimum of Customs duty. With regard to this point, it may be noted that proven instances can be quoted in which French houses have pirated, purely and simply, names, labels, trade-marks, forms of bottles, and formulæ of English patent medicines, together even with the English medicine-stamp, and boldly sold them as the genuine article (see *C. & D.*, July 11, 1906). Redress against such proceedings is difficult, especially if the goods are on the prohibited list. Among the points which the petition also draws attention to are the following:

(1) The list of foreign preparations inscribed on the Official Customs tariff is very limited, the result being that sometimes a medicament is admitted, and at other times refused, at the Customs, and thus the official treatment of foreign remedies is often the perfect image of incoherence.

(2) Pharmacists on the Riviera are placed daily in a quandary by being asked by foreign customers, who are the source of prosperity to the region, for prohibited preparations or specialities produced in neighbouring countries, besides being requested to supply them by doctors' prescriptions.

When secret remedies were severely repressed by law there may have been some reason for this state of things, but such remedies now receive a very liberal amount of toleration in France; besides which foreign visitors are practically the only persons who buy imported remedies,

and these preparations are never put up in a way to imitate French preparations. The petition concludes by asking:

(1) That the Customs formalities in the matter of medicaments may be simplified, which course is recognised as necessary by the local Customs at Nice; also that

(2) Any medicament now figuring on the Customs tariff as "prohibited" may not in future be inscribed as such, but as a "medicament not in conformity with the Codex," and on that account subjected to an additional duty.

It is interesting to recall that the late Mr. A. Nicholls, of Nice, took this subject up twelve years ago (*C. & D.*, July 4, 1896), and it was also looked into by the British Embassy at Paris and the Foreign Office at London; but evidently the petition of the Riviera pharmacists indicates that since then matters have by no means improved.

Proprietary Medicines Statistics.

We noted from the report of the Commissioners of Inland Revenue (*C. & D.*, September 5, p. 386) that there were in the year ending March, 1908, 42,272 vendors of patent medicines in Great Britain and that the tax yielded 334,142*l.* To this we are now able, through the courtesy of the Commissioners, to add the number of stamps, which shows approximately that the number of packages of patent medicines sold in that period was over forty-one millions. The following are the exact figures:

Rate	England	Scotland	Total
<i>s. d.</i>	No.	No.	No.
0 1½	32,663,968	373,234	33,037,202
0 3	7,493,209	72,613	7,565,822
0 6	996,633	5,916	1,002,549
1 0	122,066	183	122,249
2 0	18,445	—	18,445
3 0	11,308	—	11,308

The Census of Production.

Mr. A. Wilson Fox, C.B., Comptroller-General of the Commerce, Labour, and Statistics Departments of the Board of Trade, has addressed a letter to Sir Edward Fithian, Secretary of the Association of Chambers of Commerce, in which he expresses a sanguine view in regard to the census now being taken of manufactures and mining in the United Kingdom. There appears to be a feeling among some Chambers that the forms which have to be filled give manufacturers a great deal of trouble, but Mr. Wilson Fox says experience does not support that view. He tells in his letter what steps were taken by Mr. Lloyd George to give effect to the Act, but we need not go over these points as they have been fully treated in the *C. & D.* It is gratifying to learn that the committees are receiving most satisfactory assistance from manufacturers throughout the country, and they have no reason to complain of the way in which manufacturers are co-operating with the Board of Trade. In proof of this, Mr. Wilson Fox mentions that out of 3,566 schedules sent out for the coal and ironstone mining industries only thirty-five are still outstanding, and these relate to very small pits. For the woollen and worsted trades 2,800 schedules were issued, and of those only 600 are at the present moment unaccounted for—a number which is being reduced every day. Out of 1,900 schedules issued for the iron and steel trades 1,100 have already been received, and 2,400 out of 3,400 issued for the cotton trade. The outstanding schedules for those trades are coming in rapidly every day.

Advertising Preventives.

The report of the Joint Select Committee on Lotteries and Indecent Advertisements was issued last week.

It is recommended that it be made illegal for any newspaper or periodical to charge an entrance fee (including the purchase and return of coupons) for prize competitions in such paper. In regard to indecent advertisements attention is called to the fact that while the Indecent Advertisements Act expressly states that advertisements relating to complaints "arising from or relating to sexual intercourse" shall be deemed to be indecent within the meaning of Section 3 it is not an offence to place indecent printed matter in the letter-box of a house or shop. The Act does not state that advertisements of medicines or appliances for procuring abortion, promoting miscarriage, or preventing conception are to be deemed indecent, nor does it refer to advertisements printed in newspapers or periodicals. These omissions the Committee consider should be dealt with in any future legislation on this subject. Suggested clauses are given, and also the following recommendations which are of particular interest:

That the advertisement and sale of drugs or articles which might reasonably be considered as designed for promoting miscarriage or for procuring abortion should be made illegal.

That it should be made illegal to advertise drugs or articles designed for the prevention of conception.

That it would be necessary in framing any new legislation, such as that which they recommend, to insert a provision for the protection of medical men and of registered chemists acting *bona fide* in the ordinary course of their profession or business.

Morphine in China.

A lengthy letter on morphine in China from "The Times" Peking correspondent appeared in that journal on September 17, but it contained little information additional to the note we published in our issue of August 29, p. 346. The action of Japan in refusing its assent to the Article of the British Treaty prohibiting the use of morphine, except for medicinal purposes, acts as an effective stumbling-block in the way of reform, but it is still thought the assent cannot be much longer delayed. Meanwhile the use of morphine has again been the subject of official consideration, as in the "Gazette" of August 10 a memorial from the Ministry of Laws (Fa Pu) is published, in which the members of that Ministry submit their views upon a memorial from Ch'en Ch'i-t'ai, Governor of Kiang-su, which was referred to them by the Throne on December 14, 1907, for a report. In this memorial the Governor requested that penalties might be determined for the sale of morphine and the manufacture of hypodermic syringes. He pointed out that the introduction into China of morphine and its use in the form of injection had become very extensive, and that its use was worse than the opium habit. The Governor contends that the manufacture of "poisonous syringes" and the selling of them to others for the purpose of satisfying the opium-craving, whereby people continue to use them until death ensues, is identical with the manufacture of virulent poisons that cause death. The Ministry of Laws endorse the views expressed by the Governor of Kiang-su and agree with him that there is little to choose between the manufacture of deadly poisons and the preparation or sale of morphine to those who wish to satisfy the opium-craving. The penalty for the preparation and sale of opium under the old law, now repealed, was strangulation, and the Ministry suggest that the penalty for the manufacture of morphine-needles shall be one degree less, or banishment to a pestilential frontier. We learn that under this decree the Chinese Government has taken its first action, by sentencing a morphine-seller of Peking to banishment for ten years for dealing in the drug. On the other hand, it is interesting to note that the limit of three months allowed for Chinese officials to record the fact that they had ceased using opium has passed without a single man coming forward to sign the pledge, which points to a relaxation in the regulations.

Optical Observations.

By A Chemist-Optician.

IMPORTING TRACHOMA.

THE Immigration Board of the Port of London reject aliens who are suffering from trachoma. Last week a woman of seventy-five who had been rejected by the medical officer appealed to the Board. She explained that her eyes were bad because she had been crying and had been without sleep. It was decided to reject the woman, but the Board stated that if an undertaking could have been given that she would get continuous treatment she might have been allowed to enter the country.

THE SPECTACLE-MAKERS' COMPANY

is the object of an attack in the "British Medical Journal" of September 12, and the pretentious statement is made that "we should welcome the aid of the optician as an expert in the selection and adjustment of spectacles, but we refuse all co-operation with the spectacle-quack." The company is accused of having "become hand-in-glove with the British Optical Association" and "joined in the programme of the Association for turning a respectable trade into a shoddy profession." Opposition is threatened if the Spectacle-makers' Company again attempt to promote an Opticians Bill.

SPECTACLES FOR SCHOOL-CHILDREN.

The following paragraph in Circular 596 issued by the Board of Education regarding the duties of School Medical Officers is interesting to opticians:

Provision of Spectacles, etc.—In cases where medical inspection shows that the provision of spectacles is necessary for the treatment of defective eyesight, the Board will be prepared to consider proposals from a local education authority to provide suitable and inexpensive spectacles free of charge. They will, however, only sanction such an "arrangement" if they are satisfied that every endeavour will first be made to obtain the provision of the spectacles by the child's parents or by any voluntary associations which exist for the purpose. The Board will, of course, require that due precautions should be taken to secure accurate examination and appropriate prescription by qualified medical men of suitable experience.

The Board will probably be surprised to know that many medical men know little about sight-testing.

SPECTACLE-FRAMES FOR INFANTS.

Before the Section of Ophthalmology of the British Medical Association Mr. Bishop Harman demonstrated a convenient mode of fastening spectacle-frames on infants. He said that spectacles are a regrettable necessity for infants of tender years in the treatment of squint. How to fix these frames on without injuring their delicate tissues is a problem. Curl-sides cannot be used; to succeed they must be frail, and children required strong frames, else the lenses are constantly out of centre. The usual practice is to tie them on by a tape or elastic passing behind the nucha, with a result that both the nose and the tops of the ears are badly abraded, and often ulcerated, from pressure. He thereupon demonstrated a simple mode of tying on the glasses which completely avoids these difficulties. A piece of tape, elastic or not, is looped under the nucha, its ends threaded through the eyes of the spectacle-bows, then carried on to the vertex, where they are tied together. This circuit of tape holds the spectacles firmly in position, yet allows of sufficient elasticity to avoid pressure on the nose, and the bows are not dragged down on the tops of the ears. He has used the method extensively for nearly a year, and found it so satisfactory that he prefers it to curl-sides for children under seven years of age.



LENSES AND EYE-WIRES.

I wonder whether other chemist-opticians experience the same difficulty as I do sometimes in making a No. 1 size lens fit a No. 1 size frame. Although theoretically a No. 1 eye should always be the same whatever maker the lens or frame

comes from, in practice it is far from being the rule, and one sometimes finds that a new batch of lenses are just a trifle too large for the frames in stock—not very much, but sufficient to prevent the joints being screwed up tight, thus spoiling the nice finish of the frame. Some time ago this trouble occurred in rather a worse degree than usual, and I then obtained two or three sets of steel eye-plates from various sources to test the equality of size, but found that there was a considerable variation between those from different makers. This probably arises from the fact that some of the ovals were fuller than others although the axes were the same length, and it would be a great advantage if more uniformity could be obtained.

OCULAR HEADACHE.

Frequently, in the course of everyday business, the chemist has inquiries for "something to cure headache," and in this connection it is well to ask a few general questions as to the seat of the pain, and whether the customer is a continual sufferer. Then a little explanation of the effect of defective refraction of the eyes will generally suffice to induce the sufferer to have the sight tested, which, in its turn, will lead to the sale of a pair of glasses to the benefit of both parties. I have seen some very satisfactory results from cases of this kind, and one in particular which came to my notice recently may serve to illustrate my meaning. The customer was a young lady, aged twenty-five, who came in to get something for a nervous headache. On making inquiries it was discovered that she had been subject to them for four or five years, and also had been a sufferer from nervousness during the same period. As she said that she had tried all kinds of remedies, both patent and otherwise, without permanent relief, it was suggested that perhaps her eyes were the source of trouble; and although she declared that there was nothing wrong with them, and that she could see as well as anyone, she was eventually persuaded to have them tested. The result of this was that she was fitted with +1.50 D sph. both eyes for constant wear, and was asked to return in a fortnight or so to report progress. At the end of that time the young lady came back highly delighted, as the headache had completely gone and she was very much better in health. This is a typical case, one of many which are met with daily, and the chemist-optician should always see a potential customer for glasses where there is a history of continued headache without relief from medicine.

India and the East.

(From the "C. & D." Correspondent.)

A SCHOOL OF PHARMACY is to be opened in Korea in April next by the Japanese Pharmaceutical Society.

PERSONAL.—Dr. J. Takamine, of diastase fame, having completed his trip to the United States, is returning to Japan, *via* Europe.

MASONIC.—At a special meeting of the District Grand Lodge of Bombay, held on September 2, Worshipful Brother C. B. Robinson, P.D.G.S.W. (of Thomson & Taylor's, Bombay), was invested and appointed Deputy District Grand Master.

AN ORDINANCE for the registration of chemists and druggists, and amendment of the law regarding the sale of poisons, is one of the measures mentioned in the programme of the Ceylon Legislative Council. It will probably become law before the end of the year.

"MOSQUITOL."—Mr. Kelway Bamber, of the Laboratory, Hyde Park Corner, Colombo, analytical chemist, has applied for the registration of a trade-mark bearing his signature and the word "Mosquitol," in respect of a preparation to be used for the prevention of mosquito-bites, etc.

PHARMACEUTICAL AND MEDICAL NOTES.—Twenty-one pharmaceutical students entered upon their studies at the Tokyo Imperial University in September.—During July, thirty-two pharmacists were registered in Japan as having graduated by examination.—The medical colleges throughout Japan received a total of 118 students of pharmacy, who propose to qualify as medical men.

Association Affairs.

Tunbridge Wells Chemists' Assistants' Association.

THE first meeting of the session was held on September 16. The Secretary submitted the report, which showed a satisfactory state of affairs, and stated that signs were not wanting to prove that the formation of the Association fills a want, and it is confidently expected that the coming session will be even more successful than the last.

ELECTION OF OFFICERS.—The members unanimously re-elected the office-holders, who suitably acknowledged the honour: President, Mr. C. Button; Vice-President, Mr. Dick; Secretary and Treasurer, Mr. A. Norman Harris. The second annual supper is to take place at 50 Dudley Road, Tunbridge Wells, on September 30.

West Ham Chemists' Association.

A MEETING was held at Earlham Hall, Forest Gate, on Thursday, September 17, at 7 P.M., Mr. W. R. Barnes (President) in the chair.

CORRESPONDENCE.—The Secretary read a letter from Mr. C. F. G. Masterman, M.P., in reference to the Pharmacy Bill introduced by Mr. Winfrey, which he was asked to support, and he promised to give the matter his careful consideration. A reply was also read from the Secretary of the Pharmaceutical Society to a letter suggesting that belladonna plasters in the spread form should be allowed to remain in Part II. of the proposed Poison Schedule, and the conditions left as at present. The matter had been referred to the Parliamentary Committee for consideration. The Secretary also drew the attention of the meeting to another letter from the Pharmaceutical Society, inviting the Association to co-operate with the Council by recommending suitable persons for the position of local secretaries for the ensuing year for the Parliamentary division of West Ham. It was proposed by Mr. Blades, seconded by Mr. Cleland, and carried unanimously, that Messrs. W. R. Barnes, Henry Soper, and J. H. Matthews should be again recommended.

Mr. Blades proposed a vote of thanks to Mr. Soper for so ably conducting the two rambles in July and August, which were thoroughly enjoyed by the members and friends who accompanied him; this was seconded by Mr. Cleland and carried.

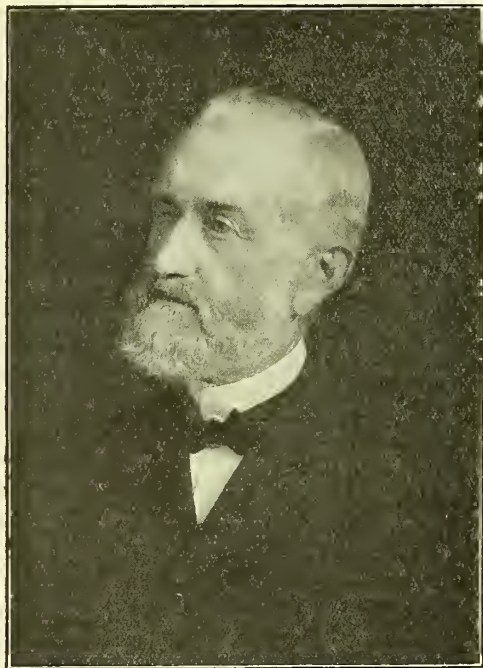
PHARMACY OF ANIMAL SUBSTANCES.—At eight o'clock the President called on Dr. W. Lauzun-Brown to deliver his lecture on this subject, in which he followed the history of pharmacy from the earliest times down to the present day. He had on view a quantity of modern preparations of animal substances, elegantly put up by well-known firms. The lecture was followed by an interesting discussion, and questions were addressed to the doctor by members and visitors, among the speakers being Dr. A. P. Cummings, the President, Messrs. E. Theodore Brewis, Matthews, Mitchell, Blades, and Soper. Mr. Matthews proposed a very hearty vote of thanks to Dr. Lauzun-Brown for his instructive lecture, which was seconded by Mr. Mitchell and carried unanimously.

PROFESSOR ALEXANDER VON POEHL, the well-known Russian pharmacist, has died suddenly from heart-disease while on a visit to Berlin. He was the founder of the first Russian institute for organo-therapeutics, and his name is specially connected with spermin.

GERMAN CHEMICALS.—At the annual meeting of the German Society for Safeguarding the Interests of the Chemical Industry it was stated that on the whole this industry had not been affected by the depression in trade during the last year. The number of factories had increased from 8,505 to 8,618, the number of workmen employed from 195,000 to 207,000, and the salaries paid out from 10,350,000*l.* to 11,500,000*l.* Of 166 companies, with a paid-up total capital of 26,450,000*l.*, the average dividend paid was 15.45 per cent., or an increase of 0.38 per cent. over the preceding year, but forty-four companies paid either no dividends at all or less than 5 per cent. Dr. Man-kiewicz offered sharp criticism to the Bill drawn up by the Government for the regulation of trade in secret remedies, and suggested another project, which is to be discussed later on.

American Pharmaceutical Association.

THE fifty-sixth annual meeting of this Association was held at Hot Springs, Arkansas, in the week ending September 12, Professor Searby presiding. The attendance was rather smaller than usual, but the number of papers submitted was above the average, and they were as a rule of somewhat more than average value, though several were scarcely of sufficient importance to warrant acceptance by a national association of pharmacists. It is somewhat a matter of surprise that the officers did not exercise a more rigid scrutiny of the papers before accepting them. The explanation of the unequal quality of the papers is no doubt to be found in the method pursued by this Association in accepting them. The papers are presented to the Chairmen of the several Sections into which the Association is divided, and each Chairman acts independently on the



PROFESSOR WILLIAM MARTIN SEARBY, PH.C.,

was born in Lincolnshire in 1835, and while at school at Grantham made up his mind to become a chemist. As an earnest of that intention he translated in his playtime the London Pharmacopœia of 1836. He was apprenticed to a chemist at Boston in 1849, but his master died a month afterwards, and young Searby was transferred to Mr. E. W. Martin, of Guildford. While there he passed the pharmaceutical Preliminary, and took up the study of botany, chemistry, and geology, being encouraged in his work by his master. When nineteen years of age Mr. Searby gave a public lecture on "The Chemistry of Everyday Life," which was illustrated by experiments. He passed the Minor examination in 1854, and the Major in 1855. Next he went into partnership with his brother in Norwich, but in 1860 emigrated to Vancouver Island, and then in 1866 to San Francisco, where he has remained. His record has ever since been one of devotion to business and altruistic service in the cause of pharmacy.

papers submitted to him, though the final acceptance of the papers for publication in the annual volume of Proceedings rests with the general Committee on Publication.

The wide expanse of territory which is covered by the American Pharmaceutical Association is shown by the fact that while the members from the Atlantic States spent three days in reaching Hot Springs, those from the Pacific States travelled eastward four days in order to reach the place of this year's meeting, which is twenty-four hours north of New Orleans and forty-eight hours south of Minneapolis. September is not a particularly desirable month in which to visit Hot Springs. The town lies in a

narrow valley between three small steep-sided mountains of some 500 to 800 ft. in height, and the midday sun beams with tropical fervour on those shut in between these hills. The mountains are national property, and the Government will not permit any buildings to be erected on them, restricting the hotels and pump-rooms to the valley. One fortunate result of this restriction is that the mountains afford charming drives and promenades, but it would seem that the public convenience would be well served by permitting the erection of at least one good hotel on the mountain, where the heat would be less oppressive during the summer. Another consequence of these conditions is that Hot Springs is a winter and not a summer resort.

THE PRESIDENT'S ADDRESS.

The Arkansas State Pharmaceutical Association and the civic authorities welcomed the visitors in much the same way as is customary with the British Conference, and then the President (Professor W. M. Searby) delivered the annual address. Much of this dealt with the affairs of the Association, such as reorganisation and methods of increasing the membership. He discussed the well-worn subjects of pharmacy as a profession, and how the status of the druggist can be raised. It sounds curious to British ears to read that all the "strength of a united opposition" will be needed to prevent the passage of the parcel-post scheme of the United States Postmaster-General, which will injuriously affect the smaller druggists. The President advised the members to push the sale of official preparations and profit by the example of manufacturing houses who combine elegance and palatability in the products they offer to the medical profession.

The affairs of the organisation seem to be in a prosperous condition. The income is in excess of the expenses, the membership list grows slowly but steadily, and there are no internal dissensions to mar the serenity of the organisation.

THE PROHIBITION MOVEMENT.

The most notable feature of the meeting was the interest manifested by the members in a paper by Mr. Mason, of Detroit, on the relation of the Prohibition movement to the drug-trade. This movement has spread so rapidly that there are now some twenty-eight million people resident in States where the sale of alcoholic liquors is prohibited by State enactment. The regulations regarding the sale of liquors vary in different States, from the very severe law in force in Georgia, where no alcoholic or malt liquors of any kind may be sold even on the prescription of a physician, to the comparatively liberal conditions existing in Massachusetts, where the pharmacist is permitted to sell liquors for medicinal purposes on the payment of a nominal annual licence-fee and the registration of each individual sale. In the States where Prohibition is in force, and where the pharmacist is permitted to sell liquors for medicinal purposes, the temptation presented to the pharmacist to use his privilege as a cloak for becoming a barkeeper is so great that in some Prohibition States, as in Kansas, the calling of the druggist has sunk to a very low place in the public esteem, the public visiting on the pharmacists in general the sins of those who use their positions as pharmacists as a cloak for the indiscriminate sale of liquors. The problem presented to the druggist in the matter is one of business expediency rather than of abstract morality. If the drug-trade is unable to prevent its members from misusing the privilege of selling liquors for medicinal purposes, that privilege will be taken away from them. It is this phase of the subject which was discussed by Mr. Mason, who introduced a series of resolutions which were adopted without dissent.

COMMERCIAL TRAINING.

Probably the most interesting papers in the Section on Education and Legislation were those which had to do with the teaching of commercial usage in the College of Pharmacy. Professor Army, of Cleveland, combines commercial and scientific instruction in a most effective and intimate manner. He furnishes to each of the junior students at the beginning of the laboratory course sufficient quantities of material to last for the entire session. For this each student gives his note, made out in due form, the drugs being charged at the market prices. On receiving these materials he makes out bills for them, getting the prices from various

price-lists, and in all this gains practical experience of the method which must be pursued in commercial life. When the student makes up a preparation he is required to ascertain its cost from the amount of material required to prepare it, and he turns over his finished preparation to the instructor with a bill at the price at which such preparations sell in the open market, receiving credit at this price. The preparation is put into the hands of a member of the senior class, who assays it and makes a report upon the quality and value. Copies of these reports, bills, etc., were presented by Professor Army, and met with general approval.

The following are abstracts of some of the papers read before the various Sections:

GELSEMIUM ASSAY.

Continuing his work of the previous year (see *C. & D.*, September 21, 1907, p. 481), Mr. L. E. Sayre gives preference to the Webster general process for alkaloids for estimating the alkaloidal content of gelsemium. Care should be taken in shaking out to see that no emulsion is formed. Avoid vigorous shaking is the hint. Iodeosin is preferred as an indicator by Mr. Webster, but Mr. Sayre employed cochineal.

OIL OF SANDALWOOD.

Messrs. A. R. L. Dolme and H. Engelhardt replied to the criticisms of Mr. E. J. Parry and Messrs. Schimmel on their previous publications, and sum up the paper by stating that they put very little reliance on the optical rotation, considering as genuine a sandal oil which contains at least 90 per cent. of santalol, is soluble in 5 parts of 70-per-cent. alcohol at 25° C. or 30° C., and has a sp. gr. of 0.965 to 0.980 at 25° C.

ESTIMATION OF PHENOL.

Messrs. W. A. Puckner and A. H. Clark described a series of experiments undertaken to find a satisfactory method of isolating and estimating phenol in compound tablets and powders. They find that the U.S.P. method for the valuation of phenol is entirely satisfactory, that phenol can be completely removed from a solution containing much potassium hydroxide by first saturating with carbon dioxide and then distilling with steam in a current of carbon dioxide. The presence of such bodies as sulphites, bromates, and nitrates does not affect the estimation of phenol by this method.

PHENOL AND CRESOTIC ACIDS IN SALICYLIC ACID.

Messrs. H. Engelhardt and H. W. Jones contributed a paper in which the Carletti reaction was recommended for the detection of phenol and cresotic acids in salicylic acid and its derivatives. The method consists in triturating the suspected salicylic acid with 5 c.c. of water, transferring to a test-tube, and after the addition of a 2-per-cent. alcoholic solution of furfural and 3 c.c. of concentrated sulphuric acid noting the colour developed at the zone of contact of the two liquids. The point of the paper seemed to be that the Carletti reaction is as useful for the detection of cresotic acid in salicylic acid and salicylates as it is for the detection of phenol in these substances. The colour obtained with the cresotic acids is brown (ortho cresotic acid) or red-violet (m and p-cresotic acids), the latter being similar to the colour obtained with phenol.

PHOSPHORIC ACID ASSAY.

Professor Virgil Coblenz and Mr. O. B. May contributed a paper in which the volumetric methods for the estimation of phosphoric acid were compared. The authors incline to a modification of Hollemann's method, in which the silver phosphate is precipitated in a neutral solution. This method is carried out by adding sufficient ammonia water to a solution of 0.1 gram of phosphoric acid until faintly alkaline, then sufficient ammonia mixture is added, and after standing for ten minutes 15 c.c. of ammonia water is added and the precipitate is set aside for one hour. The supernatant fluid is then removed by filtration, the container and filter washed with neutral 90 per cent. alcohol (about 40 c.c.). It is preferable to precipitate the phosphoric acid in a 200 c.c. flask, then wash by decantation, passing the washings through a filter. After washing with alcohol the precipitate is returned to the original container, an excess of volumetric solution of silver nitrate added (about 40 c.c. for 0.1 gram H₃PO₄), and the mixture made up to the 200 c.c. mark. After twenty-four hours standing in the dark, frequently shaking, 100 c.c. is filtered off and the excess of silver nitrate estimated according to Volhardt. It has been found that the interaction between the silver nitrate and the magnesium-ammonium phosphate is very much slower when the latter is in crystalline state than when precipitated cold. In order to avoid the introduction of chlorides, the magnesia mixture should be made up of the sulphates only.

SUGAR INVERSION IN SYRUPS.

Mr. H. W. Jones read a paper in which he showed that the cane sugar in syrup of hypophosphites (U.S.P.) is inverted

under ordinary conditions at the rate of about 4 per cent. per month, and that of syrup of calcium lactophosphate (U.S.P.) is inverted at the rate of about 15 per cent. per month. An increase in the acidity increases the rate of inversion. Organic acids do not prevent the process of inversion.

IMPORTED DRUGS.

Professor H. H. Rusby gave his experience of a year's examination of the crude drugs arriving at the Port of New York, which was of considerable interest. An importation of five tons of ground olive-stones described as such had to be admitted because the description was accurate, but within a few months the same importer was distributing powdered drugs largely adulterated with ground olive-stones. Much of the adulteration of drugs is, according to the author, intentional and studied, and is a business proposition entirely. Excessive amounts of sand have been found in henbane (28 per cent.) and anise (25 per cent.). Cumin-fruit has been found with 25 per cent. of stems and chaff. Mouldy lactucarium and wormy jambul-seeds have also been met with. Belladonna-leaves have been found with 50 to 80 per cent. of stems. Shipments of spurious matico and asparagus-seeds have arrived, the mistake probably being due to the ignorance of the collectors. Very few shipments of genuine coto-bark are made, and soap-bark is getting so scarce that it is being replaced by other substances of unknown origin.

NEW FORMULÆ.

Mr. F. M. Apple, in a paper before the Practical Pharmacy and Dispensing Section, submitted the following improved elixir:

Elixir Dulcis, or Elixir Aromaticum.

(Sweet Elixir, or Aromatic Elixir.)

Anethol	...	...	...	...	12m
Oil of coriander	...	...	...	...	1½m
Oil of myristica	...	...	...	...	2m
Tincture of vanilla (U.S.P.)	...	...	...	...	1 dr.
Alcohol	...	...	...	...	6½ oz.
Simple syrup,	...	...	...	...
Distilled water, of each a sufficiency to	...	...	...	...
make	...	...	...	...	32 oz.
Purified talc	...	...	...	...	1 oz.

A recipe for an improved *Cold Cream* or *Unguentum Aquæ Rosæ* was given by Mr. Val. Schmidt:

White wax, spermaceti (of each 5½ oz.); Russian mineral oil, pure white (30 oz., troy); distilled water (12 oz.); pure borax (2½ dr.); otto rose (30 drops).

Melt the wax and spermaceti over a slow fire in a large porcelain evaporating dish; tare, and weigh the oil into it; then apply a gentle heat until clear. Dissolve the borax in the distilled water, previously heated to 150° F.; allow the wax, spermaceti, and oil to cool to about the same temperature; add the solution of borax *all at once*, and stir briskly for a few minutes, then add the otto of roses, continuing the stirring until cool.

When thus prepared it is a snow-white, elastic, creamy-looking ointment, which will keep almost indefinitely.

Mr. F. W. Nitardy suggested the following for the N.F.:

Glyceritum Hydrastinæ Compositum.

(Compound Glycerite of Hydrastine; "Colourless Hydrastis.")

Hydrastine hydrochloride	...	...	5.00 gm.
Aluminium chloride	...	...	5.00 gm.
Dilute hydrochloric acid	...	...	1.50 c.c.
Glycerin	...	...	500.00 c.c.
Distilled water, a sufficient quantity	...	...
to make	...	...	1000.00 c.c.

Dissolve the salts in 100 c.c. of distilled water, add the dilute hydrochloric acid, and mix this solution with the glycerin. Then add a sufficient quantity of distilled water to make the product measure 1000 c.c.

Mr. W. C. Kirchgessner recommended the following:

Elixir Diethylbarbituric Acid.

Diethylbarbituric acid (veronal)	...	...	18 gm.
Compound tincture of vanillin (N.F.)	...	...	16 c.c.
Alcohol	...	...	175 c.c.
Glycerin, a sufficient quantity to	...	...
make	...	...	500 c.c.

Dissolve the diethylbarbituric acid in the alcohol, add the compound tincture of vanillin, and enough glycerin to make 500 c.c.

Elixir Hexamethylenamine Compound.

Saw palmetto berries, granulated	...	...	125 gm.
Corn silk, ground	...	...	125 gm.
Sandalwood, ground	...	...	31.25 gm.
Hexamethylenamine	...	...	41 gm.
Simple syrup	...	...	125 c.c.
Compound spirits of orange (U.S.P.)	...	...	10 c.c.
Alcohol,	...	...
Distilled water, of each, a sufficient	...	...
quantity to make	...	...	500 c.c.

Mix the drugs and moisten them with 8 fluid ounces of a mixture of alcohol 1 part and water 2 parts, and allow to macerate for forty-eight hours. Pack into a percolator; then add enough menstruum of the same proportions as aforementioned to make 360 c.c. of percolate. In this dissolve the hexamethylenamine, then add the compound spirits of orange and simple syrup. Filter if necessary.

Next year's President is Professor Oscar Oldberg, of Chicago.

Deutscher Apotheker Verein.

THE thirty-seventh annual meeting of the German Pharmaceutical Society was held in Darmstadt from September 7 to 11. This year there was no subject on the programme to command the undivided attention of the whole profession, as was the case at the last meeting, when the proposed new Imperial Pharmacy Bill, whose fate still hangs in the balance, was under discussion. The meeting was attended by over 450 members.

THE SOCIAL SIDE.—A reception was given on Monday evening, September 7, *tableaux vivants* being presented by ladies and gentlemen of the town, the band of the Hessian Grenadier Guards providing the music. On Tuesday evening there was a gala performance at the Court Theatre, while on Wednesday afternoon the chemical-works of E. Merck were visited and the members were entertained to a light supper, followed in the evening by a concert in the illuminated grounds of the Exhibition. On Thursday evening the town gave a dinner and a dance, and on Friday an excursion was made into the Odenwald. The ladies were by no means forgotten.

NEW REMEDIES.—The most important discussion took place on the relations between manufacturers and pharmacists, in which all the various proposals that have been recently brought forward to dam the increasing flood of new remedies and specialities were thoroughly threshed out, without any definite result being arrived at. The idea of establishing a central board which alone should be empowered to permit the placing of a new product on the market met with little favour. A violent discussion raged round the question of free samples to medical men. The apothekers regard the distribution of free samples by physicians to their patients as an infringement of the dispensing laws, but their offer to undertake the distribution was rejected by the representatives of the industry.

MORE EDUCATION.—The pharmacist is, however, to be given more opportunities of obtaining knowledge, as a motion was passed asking the universities and high schools where the pharmaceutical State examinations are held to give the students of pharmacy more opportunities of becoming conversant with the preparation of galenicals and chemicals by modern methods. Also to train them in carrying out physiological, chemical, microscopic, and bacteriological tests capable of being accomplished in an ordinary pharmacist's laboratory, and which he may be called upon to do for medical men.

THE NIGHT TAX.—The next resolution passed was to the effect that steps should be taken to obtain an extension of time during which the "night tax" (sixpence) on prescriptions can be levied from 9 P.M. to 7 A.M., instead of 10 P.M. to 6 A.M. as at present. The proposal to elaborate a set of abbreviations on the lines of a telegraph code for the use of members when requesting information on assistants applying for vacancies was rejected.

THE TITLE QUESTION is one that is agitating the German apotheker. The old German appellations of "gehilfe" (assistant, but more like the English journeyman) and "lehrling" (apprentice) savour far too much of trade to please his academically trained feelings. On the other hand, he does not wish to be called by the strange Latin names in use in Austria, such as *assistent*, *sustentant*, *adjunkt*, *aspirant*. Then there is another point that causes trouble. For the members of practically all other professions some title has been manufactured, which is conferred by the Sovereign for long service or special deeds accomplished. We have the medical councillor, the justice councillor, the commercial councillor, the "oekonomierat" (for farmers), the building councillor (for architects), and so on, a whole host of various "rats," but still no "apothekerrat," therefore the committee was empowered to take the steps proper towards settling this vexed question.

THE BUSINESS SIDE.—The Verein now has a membership of 4,361, including thirteen honorary, three corresponding, and fifteen extraordinary members. Next year's budget will show a balance of 3,646*l.* 18*s.* The Verein now possesses a capital of about 40,000*l.* Next year the meeting will be held in Berlin.

The White Cross Congress.

OUR Paris correspondent writes: The first International Congress for the repression of food and pharmaceutical frauds, known as the White Cross Congress, was brought to a close on September 12 at Geneva. Dr. Henri Martin and Dr. Vaudin (the President of the General Association of French Pharmacists) were appointed by that body as delegates at the Congress, and I called on Dr. Vaudin last Monday at his pharmacy in the Boulevard St. Michel, Paris, to get his impressions of the Congress. I learned from him, however, that he had been prevented from going at the last moment, and the Association was therefore represented by Dr. Martin and another pharmacist from Angoulême; but Dr. Vaudin had been able to keep himself to some extent *au courant* with the work of the Congress. I learned that M. Perrot, Professor at the Paris School of Pharmacy, had spoken at a meeting of the Congress last Saturday morning, and he drew attention to the fact that there had been a misunderstanding in the Section of Pharmacy, it being apparently impossible to define the "medicaments" employed in pharmacy—this apparently from the international point of view.

M. Bonjean, the head of the Laboratory of the French Superior Council of Hygiene, presided over the meeting when the question of mineral waters was considered. The Congress defined natural mineral water as water bottled at the spring in its natural state in the vessels in which it is delivered to the consumer; that the various processes of bottling do not alter its natural character, but that all manipulations to which the water was subjected should be plainly stated on the label of the recipient delivered to the consumer. It was decided that the Second International Congress should be held next year in Paris, and it was agreed that the White Cross Association should draw up a list of chemical and similar products to be defined at the next Congress. Dr. Bordas will be the President of the second Congress and M. Eugene Roux the Secretary.

A German correspondent informs us that about 850 members attended, twenty-nine States being officially represented. The pharmaceutical part of the programme was fixed for the last day. As each nation already has a Pharmacopœia, it was explained that it is impossible to create (as Professor Perrot pointed out) definitions for all the remedies employed in pharmacy. The exact definitions of the articles figuring on this list are to be discussed and submitted for voting at the next Congress. The following are a few of the definitions arrived at and accepted by the Congress:

Essential oils are the exclusive product of the extraction of the aromatic principles contained in those substances of vegetable origin of which they bear the name.

The appellation "wine" may only be applied to the product of complete or incomplete fermentation of fresh grapes or of the juice of fresh grapes. A geographical name or brand may only be applied to the wine actually produced in such a place.

The term "cognac" may only be given to the product of distillation of natural wines grown and distilled within the limits of Charente and Charente-Inférieure, according to the established local methods.

The term "vinegar" may not be used alone, but only in connection with a qualifying designation indicating its source, and must contain at least 6 per cent. of acetic acid.

"Beer" is the beverage obtained by alcoholic fermentation of wort produced from hops, barley malt, yeast, and water.

"Milk" is the integral product of the complete and total milking of a milk-bearing female, healthy, well nourished, and not over-worked. It must be cleanly obtained and free from colostrum. The word "milk" alone can only be applied to cow's milk.

"A fresh egg" is an egg that has not been submitted to any preserving process, and on holding to the light shows no signs of deficiency, and no traces of alteration or decomposition. (Shades of Dan Leno!)

Oils must be the actual product of the plant from which they derive their name—*e.g.*, oil of sweet almonds is the oil extracted from the almond-fruit of the almond-tree.

Lard may only contain 1 per cent. of moisture.

In all about ninety definitions were agreed upon at this Congress, and the results achieved would warrant the desirability of an international agreement on these points.

A Rubber Exhibition.

OLYMPIA is at present given over to a remarkable and novel exhibition of rubber and allied goods, which was opened last week by Sir Henry Blake, ex-Governor of Ceylon. The Exhibition, which is the first of its kind to be held in this country, has been promoted principally to bring before European manufacturers the value of the various grades of rubber produced in the different countries, but especially the British possessions, and to show the many uses to which rubber may be put commercially. The displays are of a thoroughly international character, exhibits from over thirty producing countries being shown. Brazil has a very fine display of raw rubber in a special pavilion. Most of it is Caucho ball of large size, which is eminently suitable for exhibition purposes; but the samples include all grades from Matto Grosso negrohead to fine hard Para. Messrs. S. Figgis & Co. and other firms show examples of the various qualities. Another creditable display is made by the Netherlands and the Netherlands Colonies, which is in charge of their representative, Dr. W. R. Tromp de Haas, chief of the agricultural and chemical laboratory at Java. Seven years ago Java, under Government auspices, seriously undertook rubber cultivation, and now the exports reach over two million kilos. Balata in purified rolls and sheet has a prominent place in this section, Mr. J. G. von Hemert, of Amsterdam, being the largest exhibitor. The Colonial Museum at Haarlem, to which we referred in last issue (p. 439), show rubber, guttapercha, balata, damar, copal, dragon's blood in lump and sticks in the original packing, Palembang benzoin, and a piece of the trunk of *Styrax benzoin* with resin running out. There is also a flowering branch of *Copaifera surinamensis*, seeds of *Copaifera*, and many samples of guttapercha from Borneo and Sumatra. These include gutta produced from the *Dichopsis*, both in solid rolls, as obtained by tapping, and also in the form of fibre or scrap extracted from the leaves of the tree. The former plan of procuring guttapercha by the sacrifice of the tree is no longer permitted, and it is claimed that the quality of the guttapercha produced by the leaves is quite equal to that from the latex. The Straits Settlements and Federated Malay States section has an exceedingly interesting and representative court, in the centre of which is a full-sized model of a typical Malay house, which represents the architecture of the country. The feature here is the many samples of pale Para crêpe rubber of fine quality. It is only eight years ago since the Straits Settlements seriously commenced rubber cultivation, but it is now estimated there are approximately twenty-six million trees in the various colonies, so that a large share of the world's demand for raw rubber could be supplied from the Malay Peninsula. The Singapore Botanic Gardens exhibit part of a Para tree, twenty-two years old showing the herring-bone tapping, and there is also a tree of Rambong rubber (*Ficus elastica*), or wild rubber, which is indigenous to Malaya. An equally interesting section is that of Ceylon, where there is a very fine display of biscuit and crêpe rubber. Ceylon can claim to have been the nursery of rubber in the East, and it is more than thirty years since the first seeds were brought to her shores. A Wardian-case of seedlings of Para rubber (*Hevea brasiliensis*) is on view in this section, showing how 1,900 plants were despatched from Kew to Ceylon in August, 1876. Of these plants 90 per cent. arrived in Ceylon in excellent condition, thus establishing the formation of the industry. In 1900 less than 2,000 acres were under rubber in Ceylon; to-day it is returned as 130,000 acres! The West Indies are represented by exhibits from Trinidad, British Guiana, Dominica, and St. Lucia, collected by the Permanent Exhibition Committees of those colonies and arranged by the West India Committee. These colonies have barely emerged from the experimental stage in rubber cultivation—e.g., in Dominica the plantations have not, commercially speaking, reached the bearing stage. Preference in the West Indies is shown for *Castilloa elastica* and *Hevea brasiliensis*, while *Funtumia elastica* is also popular; the same remarks apply to St. Lucia, which shows a Wardian case of young rubber plants. Mention should also be made of Uganda, which is producing good rubber in increasing quantities, principally *Funtumia elastica*.

Miscellanea.

THE INDIARUBBER, GUTTAPERCHA AND TELEGRAPH WORKS Co., of Silvertown, E., have a very interesting and comprehensive display of rubber goods, including valves, washers, tubing, hose, hot-water bottles, air-cushions, tennis balls, etc. There is also a full line of ebonite manufactures, of which the company issue a special price-list. These include baths, trays, developing-cups, funnels, etc., for photographic purposes. Ebonite surgical appliances are a speciality of the company: these comprise syringes of all descriptions, pessaries, stethoscopes, scoops, spatulas, ear-trumpets, tongue-depressors, and so on. THE NORTHERN RUBBER Co., of Retford, Notts, show rubber goods for mechanical purposes, including "leatherite" jointing (of which they are sole makers), hot-water bottles, gloves, hose, etc. THE CROSSKEYS MANUFACTURING Co., Crosskeys House, 56 Moorgate Street, E.C., show "Glossine," a solution for protecting rubber from oxidation and for waterproofing leather, giving at the same time a bright, polished appearance to the goods. They also display "Endurite," a waterproof cement for fastening rubber to rubber, rubber to leather, and leather to leather, and any of these to fabrics generally. MR. OTTO DILLNER, Torgauerstr. 30, Leipzig-Neusellerhausen, Germany, exhibits seamless rubber goods, including gloves, finger-cots and stalls, teats, ice-bags, enemas, and vulcanite goods. MR. THOMAS BALSHAW, manufacturers' agent, 111 Faringdon Road, E.C., who represents Mr. Otto Dillner, also shows many examples of rubber goods, which are stocked in London for the wholesale and export trade. There are several firms showing chemicals, colours, and indiarubber substitutes. These include TYPE & KING, LTD., 16 Mincing Lane, E.C., whose exhibit comprises a full range of rubber chemicals; also samples of the finished products made from the various chemicals and pigments. The company specialise in indiarubber substitutes, of which about a dozen examples are shown. These are ingredients used in the manufacture of rubber goods, two of the most important being "white" and "black-snow substitute," manufactured from the finest rape-seed oil. FORSTER & GREGORY, LTD., Lonesome Chemical-works, Streatham Common, S.W., also exhibit specimens of colouring materials and vulcanising and preserving agents used in the manufacture of rubber goods; also samples of their application to these purposes. ALFRED SMITH, Excelsior Works, Clayton, Manchester, and 21 Adde Street, London, E.C., has a complete range of black and drab vulcanised rubbers, including special qualities for proofing and mechanical goods. Other specialities include various substitutes, prepared lime, ultramarine, magnesia, sulphur, etc. CHAS. WINDSCHUEGL & Co., 1 Leadenhall Street, E.C., who are the general agents in Great Britain for the "Lipsia" Chemical-works, Ltd., of Muegeln, near Leipzig, have an interesting stand containing samples of light and heavy carbonate and oxide of magnesia of the "Lipsia" brand, which is now largely used in vulcanising rubber. Samples of pure white carbonate are shown in block and powder form, and as the quality is B.P. there is a steady demand for pharmaceutical purposes, the brand being distinguished for its lightness, uniformity of texture and colour. VENESTA, LTD., 20 Eastcheap, E.C., show their patent three-ply packing-cases, which combine lightness with strength and saving in weight and measurement for carriage and freight. Many trades now use "Venesta," and a circular which the company issue enumerates for what purposes they can be adapted. GEORGE SCOTT & SON (LONDON), LTD., 44 Christian Street, E., are showing the Scott vacuum stove for drying the rubber crêpe or biscuit; and other machinery-exhibits include WERNER, PFLEIDERER & PERKINS, LTD., of Peterborough, who show apparatus for washing and masticating rubber. EMIL PASSBURG, of Berlin and Erfurt, has photographs of vacuum drying and evaporating apparatus as supplied to rubber-plantations in Malay, Ceylon, and Mexico. C. CLARK & Co., 16a Bevis Marks, E.C., who are the agents for Vermorel's Ruapsach Sprayer, have a full line of these machines, which are recommended by the Board of Agriculture and other authorities. A special feature of the Exhibition is the chemical laboratory and testing-room; lectures are also delivered, and will be published in book form.

Grocers' Exhibition.

THE Grocery, Provision, Oil, and Italian Warehouse Trades Exhibition is being held this week at the Royal Agricultural Hall, Islington, London, N. Many of the exhibits will be familiar to visitors to the Confectioners' Exhibition (*C. & D.*, September 12), and the Dutch Section, which was the feature a fortnight ago, is the attraction at the Grocers' Exhibition. With an eye to things of interest to our readers, a *C. & D.* representative took a walk through the Exhibition one day this week, and here tells what he saw.

SHOP-FITTINGS.

Among the firms who are showing shop-fittings are RUDDICK & CO., PARNALL & SONS, LTD., and F. E. & G. MAUND. I spent some time at Messrs. Ruddick's stand examining a solid oak wall-fitting which had several useful fittings. The sliding glass doors were fitted with ball-bearings, and could be easily taken out for cleaning the inside. Several makers of cash-tills are present, but I did not see any startling novelty, although each firm have made improvements in their special tills. The exhibitors are G. H. GLEDHILL & SONS, LTD., THOMAS O'BRIEN, the NATIONAL CASH REGISTER CO., LTD., and the BRITISH MACHINE CO., LTD. Cash carriers are used in some large establishments, and those interested can have a demonstration of the working at the stand of the LAMSON STORE SERVICE CO., LTD. The novelty is an electric cable cash and message conveyor. WM. GARDNER & SONS (GLOUCESTER), LTD., are showing the "Rapid" sifters and mixers; while automatic packing machinery, which is an attraction to most people, is exhibited by SOUTHAL & SMITH and the FORGROVE MACHINERY CO., LTD. The former have apparatus which automatically weighs sugar, tea, and flour; while the latter company have ingenious wrapping machines, such things as soap and sweetmeats being wrapped up in paper or tinfoil. The LAMSON PARAGON SUPPLY CO., LTD., are showing a marvellous piece of apparatus which is making paper bags at the rate of 200 a minute. YOUNG's bins are familiar to readers of the *C. & D.* Close by HONIG & WERTHEIM are showing printed string, which is cheaper than good string, and has the advantage that it bears an advertisement on each foot of the tape. C. MELIN & Co. are exhibiting the "Simplex" air-tight cap for glass jars; and the Dodge metal cap, which is also being largely used in the wholesale drug trade, is being explained by the AIRTIGHT SEALING DEVELOPMENT SYNDICATE, LTD. I was interested in the antiseptic discs which are supplied to prevent contact with the metal; the surface of the disc is parchment paper, and I should imagine the discs answer the purpose well. Ornamental paper in various forms is shown by MANSELL, HUNT, CATTY & CO., LTD., whose bottle-caps are so well known to chemists; while JAMES HUNT, LTD., specialise in calendars and stationery. A new style of washable window-cards is being exhibited by the IVORINE MANUFACTURING CO., LTD., who also have price-tickets in similar material. In the gallery an annexe is occupied by C. W. FREEMAN for demonstrations of geometric advertising. This is a fascinating show, and one cannot help but fix the attention on a screen while a style quickly scratches beautiful automatic designs on a smoked lantern-slide. Needless to say, an advertisement appears during the progress of the sketch. The ADVERT Co. have some advertising novelties, and there is a chemist's lamp over one side of the stand. Several firms, including H. C. SLINGSBY, show small trucks for parcels delivery.

BEVERAGES.

This section is representative of modern tastes in beverages. Non-alcoholic drinks are seen in CANTRELL & COCHRANE, LTD.'s, ginger ales, Tana water, and "club" soda. These are shown in an alcove adorned with ferns and cooled by a fountain. N. PAUL & Co. seem the sole representative of the aerated water industry, but the BRITISH AUTOMATIC AERATORS, LTD., supply the "Consol" machines, by means of which aerated waters can be readily made. I tasted Proset for the first time at the stand of PROSET, LTD. The

attendant told me that "fruit juices and carbonated water" expresses the composition of Proset—there is a suspicion of raspberry in the taste—and I found it a very pleasant beverage. Zoedone, so popular in the 'eighties, is shown by the KOPS BREWERY, where I also noticed non-alcoholic wines. A. RIDDLE & Co., LTD., made one feel cool with a show of Stower's lime-juice cordial and lemon-squash. Cydrax, a non-alcoholic apple beverage, is shown by H. WHITEWAY & Co., LTD., where can also be seen apple vinegar—a variation on malt vinegar. BEAUFOY & Co. show malt vinegars and also medicated wines, flavouring essences, and olive-oil. STEPHEN SMITH & Co., LTD., the proprietors of Hall's wine, have a fine exhibit, the outside of the large pavilion being made up of shelves upon which are bottles of the various specialities of the company. The bottles of Keystone burgundy now bear the guarantee of the South Australian Government. New advertising matter is shown. COLEMAN & Co., LTD., exhibit Wincarnis to advantage in a corner stand, and near the entrance the VINE PRODUCTS CO., LTD., have a capital show of wines made from the V. P. basis. At the stand of LEMCO and Oxo I was told of a scheme which should send up the sales of these important meat beverages. The proprietors have acquired the copyright of twenty-four of Cecil Aldin's pictures, and are giving a reproduction of one of these to customers who produce a guinea's worth of coupons. BOVRIL, LTD., who also have a picture-distributing scheme, show the bovril preparations and virol. HORLICK'S MALTED MILK Co. are showing malted milk—I put it under the heading of beverages because I noticed at their stand quite a crowd of patrons drinking it. Malted milk-toffee is being shown elsewhere by a confectionery firm.

COFFEE ESSENCES

are so numerous that they deserve a separate heading. The biggest space in the exhibition is that occupied by NEWBALL & MASON, whose coffee essence I tasted. With a little cream a really excellent flavoured product is made. The extract of herbs of this firm is both a winter and a summer requirement, and the reason for the wine essences is now beginning. A new style in aerial advertisements should be noticed at Newball & Mason's stand. Other brands of coffee essence are the "Garton" (MIDLAND VINEGAR CO.), "Distil" (C. FRY & Co., LTD.), "Edinburgh" (THOS. SYMINGTON & Co.), "Spade" and "Shereef" (BRANSON & Co., LTD.), and "Kahvee" (J. A. SHARWOOD & Co., LTD.).

MEDICAL EXHIBITS.

An excellent model of an airship indicates by lettering on its side the position of the stall of W. T. OWBRIDGE, LTD. Here I was chiefly interested in the advertising novelties and show cards about Owbridge's Lung Tonic, which are so useful in keeping up the sales of this popular cough mixture. A small exhibit of medicinal extracts, lung linctus, Kozola cream, and herbal ointment is made by EVENDEN'S PURE EXTRACTS, LTD., whose stand is near the entrance. Flavouring-essences and culinary flavours are being shown by E. & T. PINK, the COMET CHEMICAL CO., LTD., and HAYWARD BROTHERS, LTD. Honey and beeswax are the staple exhibits of TURNER BROS., while ANDERSON, BOWEN & Co., at the Victorian Government stand, are offering "Australian Bushman" eucalyptus oil, packed pills, and "Rubwel."

POLISHES

are quite a feature of the Exhibition, Globe polish for metals, shown by RAIMES & Co., LTD., being chief. Other metal polishes are the "Swift" (SWIFT POLISH MANUFACTURING CO.), "Buttercup" (CHISWICK SOAP AND POLISH CO.), "Non-flam" (W. R. SMITH & Co.), "Duco" (STEPHENSON BROS., LTD.), "Radua," "Apex," and Meyer's putz cream (W. B. FORDHAM & SONS, LTD.), "Bluebell" and "Metalbrite" (AUTOBRITE CO.). Boot-polishes are shown by W. WREN & Co., E. BROWN & SONS, BLYTH & PRATT, LTD. ("Cobra" boot-polish), the NUGGET POLISH CO., LTD., and WILLIAM BERRY, LTD. Plate-powders are the "Coronet" (BLUEBELL POLISH CO., LTD.), "Silverdep" (SILVER REPLATING POWDER CO.), and the St. Pancras silver soap (W. B. FORDHAM & SONS, LTD.). Floor and furniture polishes are shown by several firms, including STONE & SON and HARGREAVES BROS. & Co., LTD., (Lineoleo polish). HALL, BAYLISS & Co. have an exhibit

of "Windolene" for cleaning windows without water. W. G. NIXEY shows stove-polishes.

UNCLASSIFIED.

Soap is being shown by W. GOSSAGE & SONS, LTD.; F. CHIVERS & Co. exhibit carpet and cloth soap, whilst the PEARSON SOAP Co., LTD., show "Sanoper" soap made from Australian tallow and "a specially prepared substance of volcanic origin." The MAYPOLE Co. (1889), LTD., have a bright display of Maypole soap for home dyeing. The VINOLIA Co. are also there with toilet articles and soap. GEO. MASON & Co., LTD., are showing the "O.K." sauce, and ESCOFFIER (1907), LTD., also specialise in sauces. "Khovah" custard-powder and "Lactova" blanching-powder are prominent at the stall of SUTCLIFFE & BINGHAM, LTD. The "Mermaid" bath salt is shown by WESTON & WESTALL, LTD., and "Salt Royal" is a non-caking brand of table-salt exhibited by SALT ROYAL Co., LTD. R. HYDE & Co., LTD., proprietors of many bird specialities, are showing, while cattle-foods of various kinds are shown near by by JOSEPH THORLEY, LTD. DANYSZ VIRUS, LTD., exhibit Danysz virus, other vermin-destroyers shown being "Ready Rat Relief" and "Solventem."

COMPETITIONS.

A feature of the Exhibition which will be noticed by chemist visitors is the number of competitions organised for grocers and their assistants. Reference has been made to the competition in which the first prize is a completely fitted shop, and a good number of competitors were sitting for the examination on Wednesday. At intervals in the gallery one could see coffee-roasting, tea-blending, ticket-writing, and bacon-slicing competitions in progress. The canvassing and soliciting competitions struck me as novel; in the former the assistant is supposed to be canvassing a new resident in the district, while the soliciting competition concerns the daily calls on customers for orders which grocers are accustomed to make.

Franco-British Exhibition.

French Chemical Industry.

THIS section of the Franco-British Exhibition at Shepherd's Bush presents many points of interest to the pharmaceutical visitor. An hour or two would be well spent in inspecting the exhibits, which are fully representative of the best French houses making and dealing in chemical and pharmaceutical products. The section is to be found in the series of buildings situated between the Uxbridge Road and the Wood Lane entrances of the exhibition. It is convenient to approach the section from the Wood Lane entrance, turning sharp to the right on entering.

Following the arrangement of most of the French exhibitors the chemical and pharmaceutical firms have made their exhibits uniform, but the space taken by the different exhibitors varies according to the articles to be displayed. In almost every case the goods are labelled in both English and French, so that those visitors who are not conversant with the latter language will have no difficulty in obtaining information about the exhibits. In reporting the section we adopt an alphabetical arrangement, and are obliged from considerations of space to confine our notes to the leading features of each exhibit.

E. ARMET DE LISLE, Nogent-sur-Marne, exhibits radium and apparatus for applying radium salts in the treatment of disease. There are photographs of a case of epithelioma before and after treatment with radium.

ASTIER, 72 Avenue Kleber, Paris, has a display of granular kola, cinchona, and condurango, both put up in packages and in bulk. Other specialities are mucogene (a synthetic laxative), cerealose (a malt food), and arheol (the active principle of santal oil). Volumes of "Le Monde Médical" in various languages are also shown.

AUGE ET CIE., 23 Rue Garibaldi, Lyon (English agents, Anglo-Continental Trading Co., 104 High Holborn, London, W.C.), show compressed tablets and granules, among the latter being kola granules and glycyro-phosphate granules. Pastilles are also exhibited, and poudre laxative. The compound-rhubarb tablets are made both from the French and English formulæ.

J. BACHELET, 5 Rue Aubriot, Paris (agents, T. Christy & Co., Old Swan Lane, Upper Thames Street, London, E.C.).—In addition to a small but neat show of trusses, glass hypodermic syringes with nickelled metal nozzles, pocket nasal atomisers are exhibited, and also a novelty in "appareils à ovules et suppositoires" consisting of two stamped metal plates to be held in a clamp (to hold six pairs), thus making a conical or torpedo-shaped cavity for suppositories of various sizes and shapes. The price should be considerably cheaper than the heavy metal mould in ordinary use, and one clamp will do for several shapes and sizes.

E. BAUBE, 19 Rue Sainte-Croix de la Bretonnerie, Paris, shows essential oils, olive oil, and distilled waters. "Essence composée pour eau de lavande" is a special mixture of oils for compounding lavender-water.

EMILE BERTAND, 13 Rue de Fontanes, Annonay (agents, E. Fisher & Co., 11 Rood Lane, Eastcheap, London, E.C.), has a neat show of gelatin in pink-coloured, silver leaf, gold leaf, bronze leaf, and extra leaf varieties.

BERTAUT-BLANCARD FRÈRES, 40 Rue Bonaparte, Paris show Blancard's pills and syrup (iodide of iron), Kipsol grains (a coryza specific), and surgical ligatures sterilised by the Blancard-Triollet process. Catgut is exhibited in various packages, and we noted also chloroform from chloral for anaesthesia.

A. BLOCHE, 80 Rue de Manceau, Paris, specialises in barium salts, the most interesting from the pharmaceutical point of view being barium binioxide, from which hydrogen peroxide is prepared. Various qualities of the last-named liquid are shown.

BONETTI FRÈRES, 12 Rue Vavin, Paris, exhibit chiefly proprietary articles, such as diadermine (an ointment-base), iodalia (a method of administering iodine), lecithine Lemaitre, arsiquinine, geraseptol (a urinary antiseptic), crème nivosine (a toilet-cream), and gaiacithine. Ampoules in square form are a variation on the usual shape of these receptacles.

CHARLES BUCHET ET CIE. (Pharmacie Centrale de France), 7 Rue de Jouy, Paris, have a splendid exhibit. It is divided into three sections, the central part being devoted to the company's publications, and it is flanked on either side by samples of the special pharmaceutical and chemical products of the house. The pharmaceutical section covers a wide range, and practically includes all the forms in which medicines are administered. There are capsules, granules, ampoules, biscuits, cachets, jujubes, pills, and pastilles. The chemical section is also very inclusive. There is a large number of fine chemicals, among which may be noted quinine formate, amyl salicylate, zinc peroxide, uranium acetate, herapathite, camphoric acid, sodium methylarsenate, crystalline quassine and digitaline, cocaine, saponine, bismuth subgallate, thymol biniodide, quinine and urea chlorhydrate, sodium perborate, and tannin diacetyl. The appearance of magnesium carbonate in square blocks shows that the clothes-cleaning blocks so popular in England are not unknown on the other side of the Channel. A history of the firm, to which reference has been made in previous issues of THE CHEMIST AND DRUGGIST, may be consulted at the stand, and Mr. Astor Boisselier, the English agent, is generally present to answer any commercial inquiries.

F. BOUTY, 1 Rue de Châteaudun, Paris, has an exhibit of organotherapeutic products, some of them—hepatine, ovigénine, nephrine, pulmomine, thyroïdine, and sequadine—sufficiently indicating the organs from which they are prepared. The various parts of the animal, preserved in spirit, are shown in jars. Students of pharmaceutical ceramics will notice three nice pharmacy jars on the top shelf.

E. CHARABOT, 3 Rue Jadin, Paris, is a specialist in artificial perfumes. The case contains small samples of perfume oils and the following books written by M. Charabot: "Les Parfums Artificiels," "Les Productions Végétales des Colonies Françaises," and "L'Évolution des composés Terpéniques dans les Végétaux."

TH. DEFRESNE, Paris, shows peptonate of beef (a white salt), vin Defresne (containing the salt), and elixir digestif (a pancreatin preparation).

(To be continued.)

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., September 24.

THERE is a somewhat better tone about the markets this week, but little of interest has transpired, alterations in value being limited to a small number of articles, and these of no great moment. Heavy chemicals are the subject of more inquiries for next year, and in some cases higher prices are wanted, especially in the case of bleaching-powder. Bichromates are on the easier side. Cream of tartar is a shade weaker in the absence of brisk demand, but foreign citric acid has hardened. Tartaric acid is unchanged, and Japanese refined camphor is easier. Among drugs, aside from the auctions, few noteworthy alterations are recorded. Persian galls are likely to be dearer, and tragacanth is firm. The higher values for Persian opium are maintained. Serpentry is higher, but cascara sagrada is a shade easier on the spot. Eucalyptus oil has been in fair demand, and American peppermint oil is weaker in some directions. Shellac and turpentine are lower. The principal changes of the week are as follows :

Higher	Firmer	Easier	Lower
Cocoonut oil	Citric acid (foreign)	Bichromates	Pepper
Palm oil	Coca leaves	Buchu	Shellac
Sarsaparilla (grey & native)	Eucalyptus oil	Cascara sagrada	Turpentine
Serpentry		Cream of tartar	Wax, bees' (Jamaica & E. Africa)
		Honey (Jamaica)	
		Peppermint oil	

Cablegram.

NEW YORK, September 24 :—Business in drugs is moderate. Opium is declining, and \$4.60 per lb. will now buy druggists'. Senega is steady at 34c. per lb. Copaiba is weak and declining at 42c. for Central and South American, and at 60c. for Para. Cascara sagrada is easier at 9½c. per lb., and hydrastis (golden seal) is steady at \$2. Peppermint oil is nominal at \$1.45 per lb. for tins.

Heavy Chemicals.

There is rather more activity in the heavy-chemical market, and especially so with regard to next year's requirements. The fact, however, that makers in many instances want, at any rate, a nominal advance on this year's contract prices, and in the case of bleaching-powder as much as 5s. to 10s. per ton, according to circumstances, is having an effect upon the rate of actual settlement. The tone of the market and values is firm with few exceptions, among which may be mentioned bichromates, which are on the easy side, and which may possibly decline still further.

SULPHATE OF AMMONIA.—This market is very quiet, the demand being anything but active just at present, and current supplies being more than fully equal to the demand, the tone of prices is weak. There is little or nothing doing for spring delivery, but quotations are about 5s. per ton higher than for prompt. Present nominal values for prompt are: Beckton September-December, 11½. 17s. 6d.; Beckton terms, 11½. 5s.; London, 11½. 5s.; Leith, 11½. 8s. 9d.; to 11½. 10s.; and January to June, 11½. 17s. 6d. to 12½.; Hull, 11½. 5s.

LEAD SALTS are moving somewhat better than they were. White acetate of lead, 22½. 15s. to 23½., and brown acetate of lead 18½. 15s. to 19½. Nitrate of lead, 24½. 10s. to 24½. 15s. per ton; all less 2½ per cent. Glasgow.

BARIUM PRODUCTS continue in fair all-round request, and prices are well maintained. Mineral carbonate of barytes is practically unobtainable in any quantity outside existing contracts. Nominal figures: 80 to 85 per cent., 57s. 6d.; 88 to 90 per cent., 72s. 6d.; and 92 to 94 per cent., 82s. 6d.; all net per ton in bulk, and on rails in quantities. Blane fixe pure precipitated sulphate of barium in paste form, 6½. 15s. to 7½. 10s. per ton in usual casks. Precipitated sulphate of barium by-product, dried and in powder form, 6½. to 6½. 10s. per ton. Mineral sulphate of barytes, 52s. 6d. to 100s. per ton, according to quality, quantity and package. Chloride of barium, ordinary refined crystals, in casks, 7½. to 7½. 10s. per ton; crude sulphide of barium, 70 to 75 per cent., 5½. 5s. to 5½. 17s. 6d. per ton; hydrate of barium, purest crystals, 13½. 15s. to 14½. 15s. per ton in 6-7-cwt. casks; fused concentrated barium hydrate, 56 to 60 per cent. BaO, solid, in 5-6-cwt. drums, 13½. 15s. to 15½. per ton, and crushed in special drums of about 3 cwt. each, 30s. per ton extra.

Manchester Chemical Market.

Manchester, September 22.

Business in chemicals, drugs, and drysalteries cannot fail to be materially affected by the great lock-out in the Lancashire cotton trade, about 150,000 operatives being now idle. Heavy chemicals have not been interfered with so far as quotations are concerned, but in other respects the sagging tone of the market is reflected by the absence of any practical demand. Drysalteries show little movement. Sizing flour, owing to outside influences, is occasionally 6d. per sack higher, but farinas show little change. Lubricating-oils move slowly. Ammonia muriate, 24½. per ton; sulphate of ammonia, 12½. 1s. 3d. to 12½. 2s. 9d. per ton, on rails Manchester. Acids: glacial acetic acid, 35s. per ewt.; sulphuric, free from arsenic, 145½. 36s. per ton. Aniline oil, 5½d.; salts, 5d. per lb. Chloride of barium (refined crystals), 7½. 10s. per ton. Barytes (refined white), 32s. 6d. to 35s.; grey, 35s. to 37s. 6d. per ton. Carbolic acid, 39° to 40° C., crystals, 4½d.; 34° to 35° C., 4½d. per lb.; crude 60's. East Coast, 1s. 2d. to 1s. 3d.; West Coast, 1s. 2d. to 1s. 2½d. Carbide of calcium (for acetylene-gas manufacture), 12½. to 14½. 10s. per ton; sulphate of iron (green copperas), 45s. to 47s. 6d., f.a.s. Manchester Ship Canal. Bleaching-powder, 4½. 7s. 6d. to 4½. 12s. per ton, softwood casks on rails at works. Glycerin (chemically pure, tins and cases), 65½. per ton; 5-cwt. drums, 61½. per ton. Foreign white sugar of lead, 23½. 7s. 6d.; brown, 19½. 10s.; nitrate, 24½.; acetate, 24½. per ton. Methylated spirit (61 o.p.), 1s. 8d. per gal. Naphthalene, 4½. 10s. to 8½. 10s.; salts, 35s. to 37s. 6d. per ton. Manganese, 94 per cent., 30½. to 32½.; 80 to 85 per cent., 7½.; 70 per cent., 6½. 15s.; 60 per cent., 5½. 15s. per ton. Potash, carbonate, 90 per cent., 17½. 10s.; caustic, 80 to 90 per cent., 23½. 10s. per ton; chlorate, 3½d. per lb. Glauber salts, 42s. 6d. f.o.r. Sulphate of magnesia (Epsom salts), 60s. per ton in bags, and 70s. to 85s. per ton, casks and barrels (export), according to quality; cyanide of potassium, 8½d. per lb. Verdigris (English), 9d. per lb. White powdered arsenic, 17½. 10s. per ton. Sulphate of copper, 19½. 10s. to 20½. per ton, best brands, delivered Manchester. Sub-oxide of copper (commercial powder), black, 10½d.; red, 11d. per lb. Acetate of soda, 16½. 15s. Brown acetate of lime, 6½. 7s. 6d. Yellow prussiate of potash, 4½d. to 5d. per lb.

Continental Drug and Chemical Markets.

Although business in drugs and chemicals was very quiet in Germany during July and August it became somewhat brisker (says a German report) in the beginning of September, and, in consequence of the increased demand, prices for a number of products have slightly hardened. Financial conditions have improved and more confidence is shown as to future developments, so that consumers would do well to take advantage of the present low-price level. The weather during the summer left little to be desired, and the general standard of health was good, consequently there are numerous complaints from pharmacists as to small returns. Crops in Germany have turned out well this year, and there is a good supply of botanic drugs and herbs. A firmer tone is becoming apparent in crude chemicals, in which there was a heavy over-production, and conditions for autumn trade seem more promising. The uncertainty with regard to the future of spirit in Germany somewhat affects the chemical, drug, and allied trades.

AMMON. CARB.—English makers have now fixed the prices for next year's delivery. There are still some cheaper contracts in second-hand, but it is probable that only limited quantities are obtainable. Present quotations are 62m. to 64m. per 100 kilos. duty-paid c.i.f. Hamburg.

AMYL-ALCOHOL AND AMYL-ACETATE.—For some time prices have been regulated by a convention consisting of the principal makers. Quotations have now been reduced by 10m. per 100 kilos.

CARNAUBA WAX.—Business was exceptionally slack during the past fortnight, and this tended to send prices down still further. This applies especially to sandy grey, which is

obtainable from the latest shipments at 175m. to 176m. per 100 kilos. in transit. Offers of fatty grey are less frequent and prices are maintained at 187.50m. to 189m. The demand for yellow quality has been somewhat brisker. Special prime quality is scarce and quoted at from 235m. to 240m., while medium yellow qualities are obtainable at 207.50m. to 212m., according to quantity.

CHRYSAOBIN.—The makers are obliged to maintain quotations at the high level of 26m. to 28m. per kilo. as high prices were asked by the holders for any lots of araroba which have arrived.

COCAINE (HYDROCHLOR.).—Prices are maintained at their former level, a decline being prevented by the fairly high price which prevails for crude. On the other hand the stocks in Hamburg are considerable, so that there is no probability of an advance.

COLOCYNTH.—The supply has seldom been so abundant, but there is practically no demand and holders are inclined towards price concessions. The value of Turkey natural quality in original packages is about 140m. per 100 kilos.

CUMIN-SEED.—There are practically no supplies from Morocco this year, and consequently there has been a good deal of speculative buying in America, so that prices for seed from Malta have risen considerably, being now quoted at 98m. per kilo. in transit ex Hamburg. A further advance is probable.

ERGOT.—Quiet. Spot (Hamburg) Russian is offered at 2.10m., and Spanish at 2.15m. per kilo.

ETHER (PURE).—This product, which is solely dependent on the spirit market, is in a precarious position, as the future development of spirit is so very uncertain. A strong feeling of antagonism has arisen in certain quarters against the "Centrale," and efforts are being made to lower prices. Reserve should be maintained with regard to purchases of pure ether.

LAVENDER OIL.—This year's crop in the South of France has been good and the yield of oil is considerable. Quotations for oil have already declined heavily, but they will have to fall still further, and the approximate value cannot be estimated before the end of the month.

LYCOPodium.—In consequence of the uncertainty of the market consumers are buying only from hand to mouth. Lycopodium in cases is offered at 3.40m., and sacks at 3.30m. per kilo.

MANNA.—The new crop began about three weeks earlier this year, and consequently the first offers met with considerable reserve on the part of buyers, and producers accumulated large stocks, especially as a long spell of fine weather enabled the crop to be gathered quickly. As a result of this the best qualities have declined considerably. Quotations for gerace are, however, pretty well maintained at a level of 310m. to 325m. per 100 kilos., as the districts in which this quality is obtained were affected by drought.

OXALIC ACID.—Complaints are general as to the dullness of trade. Export business is also slack, and holders of contracts have some difficulty in disposing of their deliveries. It is possible that these conditions may induce makers to lower their prices.

QUILLAIA.—During the last fortnight market conditions have undergone little change. Consumers are holding back, only covering for their immediate needs. On the other hand, quotations for Hamburg supplies in first-hand are maintained at 55m. to 56m., according to quantity. There are no offers for shipment from Chile, and it would appear that no further supplies are expected from Belang for the remainder of the year. Prices for cut-bark are at a very low level, as although in view of the value of whole-bark values ought to be 63m. to 64m. it is sold for 60m. and under.

SESAME OIL.—Market supplies for oil from the last Indian seed-crop appear to be fairly well assured until the end of the year. The new Indian seed might bring about a change, but this will not yield oil until March 1909, and nothing definite can be said as yet with regard to the result. Prospects are favourable up to now, and of late this has affected prices, so that oil for March-October delivery is offered at a reduction of about 4m. per 100 kilos.

Alpes-Maritimes Crops.

Grasse, September 14.

PEPPERMINT.—The crop has been very good this year, and on the whole it has been sold at fairly high prices by the producers. The yield of oil has been better than in former years, and considerable quantities have been manufactured. Quotations remain the same as last year.

GERANIUM.—The distillation of geranium has just begun in the Grasse factories, and the first supplies are considerable. The crop, thanks to the rain, promises well. Nothing has been settled as yet with regard to prices.

LAVENDER.—Prices are much below those of former years, and show a marked contrast to those of 1907, when quotations reached an exceptionally high level. At present, although the standard is low, they remain steady, and there is no

tendency towards a further decline, as producers are not inclined to sell on such unfavourable terms. Many producers, counting on prices if not equal to those of last year, at least better than those of former years, incurred heavier expenses than usual, and are now anxious to recoup.

JASMIN.—The jasmin crop is practically over, as the nights are too cold to enable buds to blossom. Taking all the supplies in the perfume factories into account, the crop may be described as very poor. Prices will no doubt advance after the first deliveries, and towards the end there will probably be a scarcity.

ACID, CITRIC.—The firmer tone noted in foreign last week is maintained, there being nothing now available under 1s. 3½d. per lb., and from first-hands English is quoted at 1s. 4d.

ACID, TARTARIC, is unaltered at 10¾d. per lb. for English and at 10¼d. for foreign.

ANTIMONY.—Crude Japanese is steady on the spot at from 167. 10s. to 177. per ton, and for English regulus from 317. to 327. is quoted.

BELLADONNA-ROOT.—For good testing root the previous high price of 65s. per cwt. c.i.f. is maintained.

CAMPHOR (CRUDE).—Chinese continues quiet, sellers asking 165s. per cwt. spot and 160s. c.i.f. for October-December shipment.

CAMPHOR (REFINED).—Quiet. English bells offer at from 2s. 2½d. to 2s. 3½d. per lb. as to quantity. Japanese refined is easier, sales of 3-oz. and ¼-oz. tablets having been made for October-December shipment at 1s. 8½d. per lb. c.i.f. terms; 2½-lb. slabs offer at 1s. 7d. c.i.f. for October-December shipment. In the drug auction 5 cases Japanese refined ¼-oz. tablets were held at 2s. 1d. per lb. net, no allowances.

CAPSICUMS were slow in auction, 25 bags of Nyasaland being bought in at from 35s. to 40s. for mixed red to small yellow picked.

CARAWAY-SEED is firm at 39s. to 41s. per cwt. for ordinary to fine Dutch.

CHILLIES.—Quiet. At auction 90 bags of good Mombasa were bought in at 35s., and 22 bags of Japan at 65s. for good bright.

The exports from the Nyasaland Protectorate during the year ended March 31, 1908, amounted to 32,419 lb., valued at 5407. (local price, 4d. per lb.), as compared with 6,336 lb., valued at 1067. (local price, 4d. per lb.), during the corresponding period of 1906-7.

CINCHONA.—The auction to be held at Amsterdam on October 1 will consist of 7,107 bales and 804 cases, weighing 716,715 kilos., and containing 43,190 kilos. quinine sulphate; the average quinine content of the manufacturing bark is 6.50 per cent., as compared with 6.4 per cent. in August. The manufacturing bark weighs 607,102 kilos., and the pharmaceutical bark 109,613 kilos., containing respectively 39,464 and 3,726 kilos. quinine. In the drug auction 38 serons Huanuco quill were offered and bought in at 7d., the limit being 6¾d. for sound. Both Huanuco and Loxa bark have been deleted from the new French Codex. Six bales of fair flat Calisaya sold without reserve at 9½d. per lb., and 24 bales Guayaquil crown quill bark sold at from 4d. to 8d. per lb., as in quality.

CLOVES.—At auction 6 cases of good picked Penang were offered and bought in at 11d. per lb. Privately the delivery market for Zanzibar is higher, with few sellers, and business is restricted. The sales include October-December delivery at 5½d., and January-March at 5¼d.

COPPER SULPHATE.—Sellers on the spot quote 207. 7s. 6d. per ton, and in Liverpool quotations are unaltered at 197. 10s. for September-December delivery.

CORIANDER-SEED is slow of sale. Morocco is offering at 12s. 6d. per cwt. on the spot.

CREAM OF TARTAR is offered at rather easier prices, 98 per cent. powder being obtainable at 75s., and 95 per cent. at 73s. per cwt. spot.

CUMIN-SEED.—The demand is slow, but holders are firm and quotations unchanged at 42s. to 47s. 6d. per cwt. for ordinary to good Malta, and at 42s. 6d. to 45s. for Morocco.

DILL-SEED is offering at 12s. 9d. per cwt. on the spot.

GALLS.—Prices of Persian blue are firm at 67s. 6d., green at 47s. 6d., and white at 45s. per cwt. on the spot. In the

drug-auction two bags sea-damaged Persian blue sold at 62s. 6d. per cwt.

GAMBIER.—Cubes on the spot continue to sell at 33s.

GINGER is quiet. No Jamaica was offered at auction. Two hundred packages of Calicut were bought in, including good A cut at 90s., small at 85s., and medium and small cut at 55s. Of Japan, 35 bags of lined were also bought in.

GUM ARABIC.—Privately there has recently been an improved demand for so-called Persian insoluble gum, with sales of pale picked amber from 21s. to 22s., and good ordinary sorts at 14s. per cwt. Holders are, however, asking an advance on these prices, as advices from Persia indicate that the new crop will cost considerably more. In the drug auction a case of fair pale picked Trieste grains was bought in at 85s., and ten bales Ghezireh sorts at 37s. 6d. per cwt.

MADE is steady. At auction 98 packages of West Indian practically all sold at higher prices, including palish to pale at 1s. 4d. to 1s. 6d.; pale to reddish at 1s. 2d. to 1s. 3d., and dark red and pickings at from 1s. to 1s. 1d. per lb.

NUTMEGS.—The large supply of 427 packages of West Indian was offered at auction, and practically all sold at higher prices. Of Singapore 109 boxes were offered, of which about half sold at late rates.

OIL, COD-LIVER.—The position in the Norwegian cod-liver oil market remains practically the same. Refiners are holding back and buyers are purchasing from hand to mouth only, expecting lower prices later on, as there will probably be a large quantity of oil left unsold at the close of the season. Quotation for finest non-freezing Lofoten oil is 53s. per barrel f.o.b. Bergen. The exports from Bergen up to date amount to 15,001 barrels, against 9,005 barrels at the same date of 1907. In the London drug auction thirteen casks Newfoundland cod-liver oil sold at 1s. 8d. per gal.

OIL, EUCALYPTUS.—There is a temporary scarcity on the spot, and firmer prices have in consequence been paid for high-percentage oils. Sales of round lots have been made at 1s. 1½d. per lb. net for 70-per-cent. to 75-per-cent. cineol, but the lowest is now 1s. 2d.

OIL, PEPPERMINT.—Easier. American H.G.H. near at hand is offered at 10s. 6d. per lb. in five-case lots and at 10s. 7½d. for single cases. Rather easier prices are also quoted for Wayne County oil, business having been done in good brands at 6s.

OIL, TURPENTINE.—Easier on the week, the price of American on the spot closing at 26s. 6d. per cwt.

OPIUM.—The firmness noted last week in the spot and arrival market for Persian opium continues. It is stated that nothing is now available on the spot under 12s. 6d. per lb., and for arrival last business was at 12s. 6d., but in one quarter 14s. is quoted for October-November shipment. The market for Turkey drug is steady, druggists' offering at 15s. to 15s. 6d. and Tokat at from 14s. 6d. to 16s. 6d. Turkey opium this year is exceptionally poor in morphine-content, and with a small stock the assortment on offer leaves little choice. In the drug-auction two cases of Malatia were held at 14s. 6d. per lb.

A Smyrna correspondent writes on September 12 that the week's sales consist of twenty-one cases for export at former prices. Quotations for new crop of extra quality have advanced by five piastres; other qualities remain unchanged, and the market is firm. Some rain has fallen in the Smyrna district and in the neighbourhood of Constantinople, so that agricultural work can now be begun.

PEPPER.—In auction 82 bags of Singapore offered and sold without reserve at easier prices, including barely fair at 2½d., with one lot at 3d. Privately the market for Singapore to arrive is cheaper, the sales including October-November shipment at 2½d. c.i.f. delivered weight. On the spot the demand is quiet, with sellers of fair at 3½d. At auction there was little demand for White pepper—63 bags of good Muntok being bought in at 6d., and 12 bags of Ceylon sold at 6½d. for fine, 4½d. for good, and at 3½d. for mixed blacks. Privately the market for arrival is lower, the sales including 40 tons of Singapore at 4½d. to 4d. for September-October shipment and at 4d. c.i.f. for October-November. On the spot fair Singapore is offered at 4½d., the value of fair Penang being 4½d., but little is to be had.

QUICKSILVER is steady at from 8l. 4s. to 8l. 5s. per bottle, the higher price being from first-hands.

QUININE.—Although there is no speculative demand, there is rather a healthier tone about the market in consequence of an improved consumptive inquiry, and during the past fortnight more business has been done than for some time past. The agents for the B. & S. factory report that their principals have sold a fair quantity for United States account, and the fact that this market has again commenced buying lends colour to the impression that quinine has touched its lowest point. Some light is thrown on the slump in the German export demand this year by the figures we published recently for the six months ending June 1908, which show a decline of 1,470,000 oz. as compared with the corresponding figures of 1907. The figures for the seven months ending July, which are just to hand, show that the deficiency now amounts to 1,512,000 oz., the exports from Germany up to that period having been 79,400 kilos., against 122,600 kilos. for 1907, or 43,200 kilos. less. On the spot prices are unchanged, German sulphate offering from second-hands at 7½d. to 7¾d., and makers at 8d. per oz. It is stated that the Java factory has withdrawn all offers. In view of the reduced quantity of bark to be offered at Amsterdam next week an improvement in the unit price is looked for.

An auction of quinine will be held at Amsterdam on October 9, when 50,000 oz. net of the "Amsterdam" brand will be offered.

SERPENTARY.—From New York 2s. 3d. per lb. c.i.f. is quoted.

SHELLAC.—At auction 305 cases second orange were offered and sold without reserve at about steady prices, including broken livery red at 94s., fair reddish matted to blocky at 89s. to 93s., common dark weak blocky 60s. to 62s., low dark blocky 53s. to 56s.; 50 cases fine lemony B.P. acme sold at from 128s. to 130s., and 12 cases very dark Garnet also sold without reserve at 60s. per cwt. Privately a dull tone prevails, the value of fair free TN orange now being about 95s. Futures have been quiet and lower, with small sales of October at 99s., and sellers now offer at 95s.

SOY.—In auction, the "Owl" brand was limited at 1s. 2d. per gal., duty paid. Privately values are steady at from 1s. 4d. to 1s. 4½d. per gal. for good.

TRAGACANTH.—Quiet but firm. Full prices have been paid for Bagdad of fine quality. Firsts are quoted 15l. to 16l. 10s., seconds 13l. to 14l., thirds 11l. to 12l. 10s., and fourths 9l. 10s. to 10l. 10s. per cwt.

London Drug-auctions.

Moderate supplies of first and second-hand drugs were offered, of which a fair quantity sold; but general demand was by no means brisk. Cape aloes sold well at about steady prices. New Persian Gulf asafetida was very irregular, but only part sold. Buchu was steady in spite of the larger offerings. Copaiba is plentiful, and tending easier. Peru and tolu balsams are easy. Sumatra benzoil is firm. Ceylon coca-leaves are steady, and cardamoms brought fully previous to occasionally firmer prices. Cascara is easier. Huanuco cinchona did not sell. Dragon's-blood is more plentiful, but quiet. Gamboge is also quiet and unaltered. Guaiacum easy. Jamaica honey is a shade easier for the middling and common grades. Ipecacuanha entirely lacks demand. Kola went off briskly at low rates. Myrrh is neglected. Rhubarb is slow, but materially unaltered. Both grey and native Jamaica were inclined to be dearer, taking quality into consideration. Tinnevely senna brought fully previous prices. Squill is very difficult to quit. Beeswax tended easier generally, especially in the case of Jamaica and East African, which found a ready sale. The number of original packages offered and sold is as follows, private sales being denoted by asterisks:

	Offered	Sold		Offered	Sold
Aloes—			Balsam—		
Cape	88	88	Copaiba	14	0
Socotrine (kegs) ..	11	0	Peru	2	0
Zanzibar (skins) ..	1	1	Tolu	14	4
Ambergris (tins)...	2	0	Benzoil—		
Aniseed	72	20	Sumatra	126	20
Aniseed, Star	35	0	Buchu	49	11
Apricot-kernels ..	3	0	Calumba	14	0
Areca	174	0	Camphor—		
Argol	29	0	Ceylon, crude ...	4	0
Asafetida	283	36	Jap. ref.	10	0

Offered Sold		Offered Sold	
Cannabis indica—		Oil, camphor	17 ... 0
Bombay.....	3 ... 0	cassia	4 ... 0
East Af.	14 ... 0	cinnamon (leaf) ..	5 ... 0
Canella alba ..	21 ... 0	cod liver (Newf.) ..	13 ... 13
Capsicums	13 ... 0	lemongrass	6 ... 0
Cardamoms	210 ... 86	lime	5 ... 0
Cascara sagrada ..	103 ... 25	orange	1 ... 0
Cascarilla	69 ... 0	pimento	2 ... 0
Chillies	23 ... 0	Olibanum	136 ... 0
Chiretta	5 ... 5	Opium	2 ... 0
Cinchona	79 ... 30	Orange-peel	21 ... 3
Coca-leaves	67 ... 54	Rhubarb (China)...	65 ... 4
Colocynth. pulp ..	14 ... 0	Sarsaparilla—	
Cubebs	4 ... 0	Grey Jamaica ...	11 ... 11
Cuttlesfish-bone ..	81 ... 0	Native	19 ... 16
Dragon's-blood ..	36 ... 5	Seedlac	89 ... 0
Elemi	9 ... *	Senna—	
Ergot	15 ... 0	Alex.	83 ... 5
Fennel-seed	20 ... 0	Mecca	8 ... 0
Fenugreek-seed ..	80 ... 0	Tinn.	67 ... 67
Galangal	30 ... 0	Soy	10 ... 0
Galls (Per.)	7 ... 3	Squill	58 ... 0
Gamboge	25 ... 0	Sticklac	20 ... 0
Gelatine	4 ... 0	Strophanthus	6 ... 0
Guaiacum	7 ... 7	Tamarinds (W.I.) ..	31 ... *12
Gum arabic	10 ... 0	Tonka beans	2 ... 0
Honey—		Turmeric	747 ... 29
Jamaica.....	187 ... 154	Turtle, dried	3 ... 0
West Ind.	3 ... 3	Wax (bees)—	
Ipecacuanha—		Australian	2 ... 0
Cartagena.....	1 ... 1	East African ...	139 ... 82
Matto Grosso ...	19 ... 4	East Indian	123 ... 0
Minas.	2 ... 0	Egyptian	41 ... 0
Jalap	10 ... 0	Jamaica	64 ... 25
Kamala	3 ... 0	Madagascar	259 ... 5
Kino (E.I.)	6 ... 0	Morocco.....	11 ... 0
Kola	107 ... 90	Mozambique ...	15 ... 0
Lime-juice	11 ... 0	Soudan	78 ... 0
Mastich	9 ... 0	Spanish	18 ... 0
Milk-sugar	21 ... 0	West African ...	3 ... 0
Myrrh	54 ... 0	Zanzibar	118 ... 0
Nux Vomica.....	411 ... 0	Wax, veg. (Japan) ..	19 ... 0

ALOES.—Interest centred in the Cape variety, and although a fairly large quantity was brought to the hammer, prices on the average were fully steady, the slight decline on firsts being more than balanced by the advance in the medium and common grades. Mossel Bay (usual 20-per-cent. tares) sold at from 30s. to 31s. for good to fine bright hard firsts; 29s. to 29s. 6d. for good seconds, slightly soft and drossy; 27s. to 28s. 6d. for dull soft and drossy; and 23s. to 25s. for inferior dull mixed with sand. Fourteen cases Algoa Bay sold on estimated tares at 26s. for fair bright, slightly soft, and at from 24s. 6d. to 25s. for very soft and drossy to bright softish seconds. Eleven kegs good stiff pasty Socotrine were bought in at 95s. per cwt., and a case of fair hepatic Zanzibar in skins sold at 15s. per cwt. subject to owner's approval.

ANISEED.—Ten bags fair Spanish apparently sold at 36s. per cwt., and for ten bags of common Russian 18s. 6d. was paid without reserve. Privately Russian is steady at from 19s. 6d. to 20s. 6d. per cwt. on the spot, according to quality.

ARECA.—Neglected. Fair sound Ceylon is obtainable at 15s. per cwt.

ASAFETIDA.—The new arrivals of Persian Gulf sold at very irregular prices, owing to the variation in buyers' ideas of value. Brownish loose almonds, partly blocky, sold at 85s.; pale almondy block, slightly heavy, in large cases, 72s. 6d. to 75s. for heavier; almondy block, partly made up, 70s. to 72s.; pinky almondy block, part heavy and drossy, 60s.; brownish almondy block, 52s. 6d. to 55s.; and wet 45s. per cwt. Further sales were made privately.

BALSAM COPAIBA.—For 14 cases of opaque balsam from Barranquilla, Colombia, a bid of 1s. 8d. is to be submitted, the limit being 1s. 10d.; 2 cases thinnish opaque, said to be Cartagena, were held for 1s. 8d.

BALSAM PERU.—Fair, of direct import from Acajutla was held for 6s. 6d. per lb.

BALSAM TOLU.—Fourteen cases of fair, a little softish in large tins sold at 9d. per lb.

BENZON.—About one hundred cases Sumatra have come to hand, and part were put on show to-day, giving buyers

a little wider choice in quantity than recently. In auction ten cases of extra good Sumatra seconds, well and evenly packed, with small glassy almonds, were held at 8l. 15s. per cwt. Six cases of good almondy ditto sold at 8l. 2s. 6d. to 8l. 5s., and twelve cases fair almondy seconds, slightly false packed, realised 6l. 7s. 6d. to 6l. 17s. 6d., good thirds 5l. 12s. 6d., and common barkly thirds 82s. 6d.

BUTCH.—A much larger supply was offered, but the prices paid were about steady. A bale of ordinary dull round sold at 10d. per lb., and for 10 bales of fair, rather stalky round greenish 8½d. was paid, yellowish going at 8d. Six bales yellow "longs" and "ovals" were bought in.

CARDAMOMS.—Only part sold, but prices on the whole were fairly steady. Ceylon-Mysore, extra bold pale smooth, sold at 2s. 7d. to 2s. 8d.; good bold pale 2s. 1d. to 2s. 2d.; bold medium palish to pale 1s. 10d. to 1s. 11d.; bold dull 1s. 9d.; small and medium palish to pale 1s. 7d. to 1s. 9d.; small palish to pale 1s. 5d. to 1s. 6d.; brown and split 1s. 4d. Splits, bold pale 1s. 7d. to 1s. 8d.; medium 1s. 5d.; small 1s. 4d.; seed 1s. 7d. to 1s. 9d. Good dark Bombay seed was held at 1s. 9d. per lb.

The exports from Ceylon during the period January 1 to August 31, 1908, amounted to 393,895 lb., or 116,619 lb. less than at the corresponding period of 1907. Principal destinations were: India, 181,002 lb.; United Kingdom, 137,401 lb.; Germany, 29,712 lb.; Turkey, 19,476 lb.; Africa, 9,312 lb.; Denmark, 6,720 lb.; France, 3,596 lb.; Straits Settlements, 3,441 lb.; and the United States, 1,495 lb.

CASCARA SAGRADA.—The tone is a trifle easier on the spot with offers at 40s. per cwt. In auction 103 bags fair, rather coarse two-year-old bark were offered, of which twenty-five sold at 40s. gross for net, without discount.

CASCARILLA.—Bold quill part silvery was limited at 80s., fair at 77s. 6d., lean stringy quill at 65s. to 67s. 6d., and siftings at 52s. 6d. to 55s. per cwt.

COCA-LEAVES.—Rather firmer. Sixty-one cases of barely fair greenish brown Ceylon-Huanuco sold at 7½d., browner ditto at from 6d. to 6½d., and common brown 5½d. per lb.

DRAGON'S-BLOOD.—In larger supply, but neglected. Fine bright reboiled Singapore lump is still held for 11l. 10s. per cwt., good ditto at 11l.; common bag-shaped was retired at 7l. 5s. Four cases fair seedy lump realised 8l. 15s., and for duller ditto 8l. 5s. was paid for a case. Ten cases have arrived from Penang and two cases from Singapore.

ELEMI.—Ordinary dull Manila paste, of which 9 cases were offered, was bought in, the highest obtainable bid being 41s. per cwt. Part had been sold privately.

FENUGREEK-SEED.—Fair Morocco was bought in at 10s., a bid of 9s. 6d. being refused.

GUAIACUM.—About steady. Seven packages of good to fair glassy block sold at from 6d. to 4½d., and at 1¾d. for common drossy.

HONEY.—There was a good demand for Jamaica, induced perhaps by the tendency of brokers to give way here and there, prices generally being 1s. easier, but fine was dearer; good to fine pale set Jamaica sold at 31s. to 34s., palish set 24s. to 26s. 6d., brown set 23s., darkish to fair amber liquid 22s. 6d. to 25s., middling dark brown liquid 21s. to 22s. Three casks fair amber West Indian syrup sold at 24s.

IPECACUANHA.—Quite neglected. The only business done in auction applied to slightly sea-damaged Matto Grosso, which sold at from 4s. 5d. to 4s. 6d., being cheap. Fair sound was held at 5s., and two bales cultivated Minas at 5s. per lb. A bag of fair Cartagena, all that offered, brought 4s. 4d. per lb.

JALAP.—In auction ten bags of 7 per cent. resin were retired at 11d. per lb. From Hamburg the higher price of 1s. 0½d. is quoted for root analysing 10 per cent.

KOLA.—In demand. Twenty-two bags of small to bold dried Jamaica realised 1½d. per lb., and 54 barrels Jamaica sold at from 1¾d. to 2d. for fair small to bold ditto, and slightly mouldy at 1½d.

LIME-JUICE.—The offerings included fair pale raw West Indian, for which 1s. 2d. per gal. was wanted. The arrivals include 415 packages from Dominica.

NUX VOMICA.—Fair bright silky Ceylon were limited at 12s. per cwt., at which price private sales have been made.

OIL, CINNAMON.—In auction good bright Ceylon leaf oil was bought in at 2 $\frac{3}{4}$ d. per oz. The shipments of bark and leaf oil from Ceylon show a substantial increase this year, the total up to August 31 being 214,414 oz. against 49,886 oz. last year. The United Kingdom received 108,462 oz., Germany 94,456 oz., and the U.S.A. 10,000 oz.

OIL, LIME.—Five cases fair West Indian distilled were held at 2s. 6d. per lb. The arrivals include thirty-nine packages from Dominica.

ORANGE-PEEL.—Three cases fair palish strip sold without reserve at 4 $\frac{3}{4}$ d. per lb.

RHUBARB.—Quiet. A case of bold flat Shensi with three-quarters fair pinky fracture sold at 2s. 2d., and a case of round and flat Shensi pickings with three-quarters fair pinky fracture realised 1s. 7d. Small sales of medium round Canton with half pinky and half grey and dark fracture were made privately at 1s. 3d. A bid of 2s. 7d. was refused for two cases medium round Shensi with three-quarters good pinky fracture, and for three cases medium to bold round Shensi and Canton mixed, with about three-quarters pale pinky fracture, an offer of 1s. 4d. is to be submitted to owner. Small round horny High-dried, with half pale and half grey and dark fracture, was retired at 7 $\frac{1}{2}$ d. per lb. A fair quantity of new crop is close at hand, including flat High-dried.

SARSAPARILLA.—Taking into consideration the quality, both grey and native Jamaica were rather dearer, especially common grades of the latter. Eleven bales native-Jamaica sold, including common mixed at 9d., dull red at 10d., and fair red at 1s. per lb., while a further 8 bales realised 1s. 2d. for good red and 1s. for fair. Eleven bales of genuine grey Jamaica sold at 1s. 5d. for very coarse and damaged, and 1s. 6d. for barely fair. The quality on the whole was poorer than usual, being somewhat mixed with Guayaquil character.

SENNA.—Tinnevely was in much reduced supply and prices were "full up." Boldish green leaf sold at 4d. to 4 $\frac{1}{4}$ d.; bold medium green 3d. to 3 $\frac{3}{4}$ d.; and common yellowish to middling 2 $\frac{1}{4}$ d. to 2 $\frac{1}{2}$ d.; pods realised 2 $\frac{3}{4}$ d. One case good Alexandrian leaf sold at 8 $\frac{1}{2}$ d., and four bales siftings at 1 $\frac{1}{2}$ d.; half-leaf was brought in at 2 $\frac{1}{2}$ d. to 2 $\frac{3}{4}$ d. per lb.

STROPHANTHUS.—Six bags of brown Hispidus were held for 10d. per lb. The exports from the Nyasaland Protectorate during the year ending March 31, 1908, amounted to 29,394 lb., valued at 3,674l. (local price 2s. 6d. per lb.), as compared with 31,477 lb., valued at 3,935l. (local price 2s. 6d. per lb.), during the corresponding period of 1906-7.

TURMERIC.—In auction eight bags sea-damaged Madras finger sold at from 14s. to 16s., and for sound bulbs 15s. was paid. Privately, middling to fair Madras finger is offered at from 20s. to 22s. per cwt., Bengal is quoted 19s., and Cochin split bulbs at 13s., at which small sales have been made.

WAX, BEES'.—A fair quantity of Jamaica was offered, of which the bulk sold at about 2s. 6d. per cwt. easier rates, from 7l. 7s. 6d. to 7l. 12s. 6d. being paid for dark brown to good pale, with one lot at 7l. 15s. per cwt. A pile of 114 packages East African mostly sold at easier rates, including fair bright yellow at 6l. 10s. to 6l. 7s. 6d., ordinary part drossy at 6l. 2s. 6d. to 6l. 5s., half drossy 6l. to 6l. 2s. 6d., low dark drossy 5l., and sweepings 57s. 6d. per cwt. Forty-one packages Egyptian were held at 6l. 5s. for common dark and partly drossy, a bid of 6l. 2s. 6d. being refused; fifteen bags of fair yellow East African rolls were bought in at 7l. Fair brown Zanzibar block was held at 6l. 10s., fair yellow Madagascar at 6l. 10s., five bags of mixed colours selling at this price, and for 24 mats very dark a bid of 6l. 15s. is to be submitted. Two packages fair grey and brown mixed Australian sold at 8l. 10s.

The exports from the Nyasaland Protectorate during the year ending March 31, 1908, amounted to 46,152 lb., valued at 2,307l. (local price, 1s. per lb.), as compared with 66,779 lb., valued at 3,339l. (local price, 1s. per lb.), during the corresponding period 1906-7.

THE IMPORTS of drugs into Costa Rica from the United Kingdom in 1907 amounted in value to 4,158l., being an increase of 190l. Perfumery imports from the United Kingdom were valued at 1,193l.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. Publication of letters does not imply our agreement with the arguments or approval of the statements therein. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects presumably of interest to our readers generally. Letters received after the early posts on Wednesday cannot as a rule be dealt with in the current week's issue.

BUSINESS INFORMATION.—We have very full records of the makers or agents for articles and products connected with the chemical and drug trades, and supply information respecting them by post to inquirers. Inquiries regarding any articles which cannot be traced in this manner are inserted under "Information Wanted."

The Present Position.

SIR,—During the past few weeks a singular change has come over the attitude of our official leaders. It is difficult to account for it, and it would be deeply interesting to have it explained. The oracles are dumb. Lord Crewe, the member of the Government who has had most to do with this matter, said last May in the House of Lords:

It took me some time to arrive at a definite conclusion that these titles under the Act of 1868 are personal, that they are to some extent in the nature of a degree or qualification, and that they ought not to be attached to any name except that of the men who had actually earned them.

It daily becomes clearer that the appropriation of our title was and is a moral wrong. The canons of right and wrong do not alter with the vagaries of opinion. We might be far worse off than if we had to go on fighting for so clear an issue. Is not all true and noble life a perpetual struggle for right against the opposing forces of wrong, and would we make it otherwise if we could? We have had shakers at us the lawful carrying-on of the business by companies for twenty-eight years, as though prescription was conferred by the taking advantage of the imperfect drafting of an Act of Parliament to commit an unpunishable felony. Really it is not so long, because the theft of the title did not follow closely upon the judgment of the House of Lords in 1880. But if it were centuries old instead of scarcely a generation, no lapse of time can bar the redress of a proved injustice. No one can deny that gross injustice is done to qualified chemists by the present evasion of the law. British law has destroyed slavery, but how many centuries passed before the venerable religious and social sanctions of that institution were overborne by the awakened conscience of Christendom, and the injustice done to the slave was remedied? If lapse of time is to stay the hand of the reformer, and paralyse both reason and justice, our future history will lack some of the most glorious passages in our past records. Why this sudden eagerness to close the controversy—to agree with the adversary in the way? What have we to lose by prolonging our efforts to mould and direct public opinion? Is anything offered, even of microscopic value, as a *quid pro quo* for the surrender of our just claims? Because the Upper House chose to knock the bottom out of a measure passed by the Commons the last word has not been spoken. The great leader whom we have lost saw clearly that the thing needful was a limitation of the Lords' veto. The Pharmacy Bill is not of great public importance, but it will serve as a touchstone to test the metal of the strongest Government of our time. Will the Government declare for usurped privilege or for the claims of right and justice? That is the vital issue. Certainly if matters like these are to be dealt with by the titled chairmen of stores in the interests of their own pockets, the sooner the farce of calling ourselves a self-governing people is ended the better. Ship-money was not a more typical exercise of autocratic power. Possibly, like ship-money, such acts, if repeated, may lead to an indignant sweeping away of a mischievous anachronism. The present effort at legisla-

tion not only legalises the consequences of past deficiencies, but leaves loopholes for other and growing evils in the future. It expresses a pious opinion that certain things should be done, but provides no machinery for enforcement or penalty for breach. Nothing is done to stop the piracies of the unqualified vendor, who is likely to figure largely on the scene in the near future. The old fallacy is still cherished that penalties recoverable with extreme difficulty on acts of rare occurrence, unprofitable in themselves, and merely incidental to the business, will ever deter men who are not chemists from passing themselves off as such. The key of our position is betrayed from within, and a door left ajar for fresh assailants from without. Will there not be some searchings of heart as to whether the maintenance of a Society is worth while whose fruits are such as these?

Dover.

J. F. BROWN.

The Stability of Alkaloidal Extracts.

SIR,—In your issue of September 5 Dr. W. T. Thackeray takes exception to my treatment of the above subject in a previous issue; it evidently falls short of the degree of excellence that might have been attained, and is "misleading" inasmuch as certain details have escaped mention, or perhaps may have been adroitly suppressed. The paper in question obviously was an attempt to present in a concise form evidence of the stability of alkaloids contained in galenical preparations under reasonable conditions. In preparing an account of any inquiry of the sort, it is usually desirable to keep closely to the main point of the subject in hand and avoid recording observations and acquired ideas unless they lead to some conclusions material to the discussion. At the same time necessary information ought not to be left out. Failure to observe the former desideratum is aptly exemplified by Dr. Thackeray's interjection of ideas regarding the superiority of pure alkaloids over fluid extracts, and also his empirical and unalterable opinion of the virtues of preparations two years old. The equally deplorable sin of omission with respect to deposits and evaporation was not committed by me, and satisfaction must be sought from the wicked editor who blue-pencilled part of the article, viz.:

In view of the fact that fluid extracts are liable to increase in alcoholic strength owing to precipitation, as pointed out by J. U. Lloyd, it may be noted that, increases or decreases in alkaloidal content through that cause being outside the scope of this inquiry, a portion representative of the entire sample was operated on each time.

The liquid preparations had, as usual, been allowed to deposit after completion, and the samples poured off showed little further precipitation during the two years. The character of these deposits is much in debate; I had nothing new to contribute on the subject, and therefore ventured no opinion. The old solid extracts were still of a pilular consistency, although the pots were covered with parchment-paper only.

Yours faithfully,

New York, September 15.

M. N. WEBSTER.

The Drug-trade in Canada.

SIR,—I read recently an article by a druggist in your paper on the scarcity of wholesale drug-houses in what used to be known as the Great Lone Land. In reply to that appeared a statement that there were houses in Montreal, Winnipeg, Regina, Calgary, etc. That is true, but what your correspondent meant perhaps was the scarcity of representative houses. These places, which have a wholesale drug-house near them, are served by a combine which has a practical monopoly at least of the Eastern provinces. I agree with your correspondent that there is abundant room for drug-firms both in the East and West. It would not be a heavy expense for some of the large firms to establish a branch office in Montreal or Toronto, and they would be welcomed by the retail trade. With a population of over seven millions, Canada ought not to be behind South Africa, which is well canvassed by the English drug-firms.

I am, yours, etc.,

GLYCEROL. (56/5.)

Natural Selection.

SIR,—Owing to the prevailing misunderstanding which identifies "Darwinism" with "organic evolution" it seems worth pointing out that "Xrayser's" note in the *C. & D.* (p. 419) may prove very misleading. I do not mean that "Xrayser" is so foolish as to hold that the theory

of organic evolution stands or falls with "natural selection," but "a lost cause," "new explanation of cosmic processes," etc., justify the pointing out of the misleading character of his remarks. Darwin himself merely claimed that "natural selection" was one of the most important factors of organic evolution. He never affirmed that natural selection afforded any explanation of variation, or of the origin of life, for example. The Neo-Lamarckians, Mutationists, and Mendelians cited as "the principal antagonists of the Darwinians of to-day" are not only agreed that the idea of special creation (which is popularly regarded as the antagonistic theory to Darwinism) is ridiculously absurd, but, moreover, are agreed that species have originated by a process of evolution. The differences between the Darwinians and the Neo-Lamarckians, etc., are only matters of detail which do not affect the general evolutionary principle. The tone "Xrayser" has here adopted, together with the popular confusion of "Darwinism" and "evolution," is calculated to make some of his readers believe that "organic evolution" is shaking on its foundations.

Yours truly,

Dewsbury.

R. J. H. DAY.

Face-massage Cream.

SIR,—Might I be allowed to suggest an improvement in the face-massage cream formula given in these columns on June 20? This modification overcomes a difficulty which may be experienced from the fact that hydrogen peroxide develops a certain degree of acidity, consequently it acts on the sodium carbonate, liberating CO_2 , which causes the lids of pots to be blown off. The following formula will obviate any such trouble:

Liquid paraffin	...	...	...	3j.
Cremogen	...	...	...	3lj.
Hydrogen peroxide	...	...	...	3j.
Borax	...	...	...	5ss.
Water	...	...	...	5viij.

Melt the cremogen and proceed as follows: Dissolve the borax in about one-third of the water (hot), mix the peroxide with the remainder of the water (cold), add the solution of borax to the melted cremogen, stirring well. The peroxide and balance of water may now be added in a thin stream, using a bone spatula for stirring.

By this method a very fine cream is produced.

Yours truly,

A. P. PUNCHER. (52/66.)

Chemists' Assistants in India.

SIR,—"Anglo-Indian's" letter (*C. & D.*, August 15) shows him to be a man who has tried India and has had enough of it, and I don't blame him. His letter is, in my opinion—and, I am sure, in the opinion of the great majority of assistants out here, excepting, perhaps, a few "domiciled" ones—a straightforward letter giving honest advice to the intending emigrant. He is right. No man should come out to India, if he values himself above a grocer's counter-hand or a doctor's boy, under a starting salary of Rs. 250 and quarters—if he comes out on less it will not take him long to find out that it was not worth while to "stick" a climate very often 110° in the shade to save Rs. 25 per month as "Domiciled" did. Another point: let him insist on his return passage, salary from date of leaving home, and a yearly holiday—a month at least if on the plains—all points often, if not always, forgotten by the employer, but soon remembered by the youngster after India has lost the charm it usually has for the new arrival.

Yours truly,

DRUGS. (54/37.)

SIR,—One must remember in writing of the Great Indian Empire that one district varies so much from another, especially as to cost of living. From my own point of view as an assistant I heartily endorse "Exile's" remarks. I came out East on a salary of Rs. 200 per month; hours of duty, 7 A.M. to 5 P.M. and 7 A.M. to 7 P.M. alternately, out of which I get $1\frac{1}{2}$ hour off daily. It costs me Rs. 125 to live each month, and I will add here that I am a teetotaler, so whisky plays no part in my stores bill, as is usual in India. I see drapers and the like commence on the same salary, have shorter hours, annual holidays, and even medical attendance free, and passage paid home at the end of a three-years' agreement; neither of these two clauses is granted to me. Let every man think it well over before coming to India,

and if he decides to come, choose a hill station and make sure he gets his passage paid home. There are firms, I know, who pay and treat their assistants well—and there are others. The assistant should remember that in coming to the tropics he is coming to live in a Turkish bath all the time, so that he will not come out for the good of his health.

Yours faithfully,

ANOTHER EXILE. (54/35.)

The Chemist Blamed.

SIR,—I have lately had an example of medical unreasonableness in prescribing which quite equals any of those mentioned by Mr. Wright at Aberdeen. A local medico ordered tabloid hyd. c. cretâ 1 grain. No one stocked them, but they were telegraphed for and sent per passenger-train. After six hours' waiting they arrived, and one of them was carefully crushed and given to the child. The subsequent death of the child was attributed by the mother to the chemist through the delay.

Yours truly,

PH.C. (54/44.)

"C. & D." and B.P.C.

SIR,—Allow me to congratulate you on your Conference report: it makes a capital number.

Yours faithfully,

ABEL SCHOLAR.

Legal Queries.

For concise statements respecting various Acts which affect directly or indirectly the Chemical and Drug Trades, see the "C. & D. Diary," 1908, p. 456; Stamped Medicine Law, p. 435; Pharmacy and Poisons Law, p. 448; and Patents Law, p. 442.

Doubtful (49/5).—You need not undertake the duties of an executor, although named in a will, unless you desire to do so.

D. G. (51/17).—You will find a paragraph on p. 463 of our "Diary" regarding leases, and in our book "Opening a Pharmacy," a model lease for chemists is included.

Salol (48/2).—An unqualified chemist who has served an apprenticeship has an advantage over one who has not served his time in respect to the exemption clause of the Medicine-stamp Act, but he may not legally sell scheduled poisons.

G. G. W. (47/66).—Section 41 of the Trade-marks Act provides that registration of a mark is conclusive evidence of validity after the lapse of seven years. Up to that time a previous user could move to have the mark expunged from the trade-mark register.

W. F. D. (55/51).—The only recognition extended in the Poisons and Pharmacy Bill to Army compounders is in the curriculum, where power is given to the Pharmaceutical Council to accept their certificates in lieu of examination—a circumstance which is never likely to happen.

C. B. (53/70).—Although your liniment label does not specifically recommend the preparation for any human ailment, the words "In severe cases" are on the border line of liability, but we do not think that a prosecution could be successfully instituted against you in respect of these words. It would, however, be advisable to change the label at the first opportunity.

W. B. Lawyer (50/1).—The agreement for the premises which you have let is not a lease. The simplest plan which you can adopt to secure yourself is to write a letter to the tenant, stating the terms upon which you let the premises and the conditions of occupancy, then obtain from the tenant an acknowledgment of receipt of the letter and acceptance of the terms and conditions.

F. Jones (49/60).—The use of formaldehyde as a preservative for food is not specially prohibited by law; but, as you will observe by reference to the *C. & D. Diary*, a Departmental Committee has recommended that this preservative should not be used in foods; consequently its employment in any preparation may be regarded by legal authorities as injurious to health. Whether this is so or not would be entirely a question of evidence.

P. S. (53/9).—It is necessary in registering a company to state the capital and the names of the first subscribers; the latter need not necessarily be of persons actually forming the company, but the names of shareholders must ultimately be returned to the Registrar of Companies when the share capital has been allotted. All company matters which must legally be

reported to Somerset House are documents to which the public have access, and the publication of excerpts from them by newspapers and journals cannot be prevented.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months. A preliminary condition for reporting on samples submitted is that all particulars as to source and uses are given to us.

Interested (40/3).—(1) We should say that the lamp-chimneys break after cooling because they are imperfectly annealed. The experience is not uncommon with some batches of lamp-chimneys. (2) *POMMADE HONGROISE*.—The following recipe from "Pharmaceutical Formulas" answers your queries, as the directions for preparing the pomade are given in considerable detail:

Spermaceti	...	...	...	3ij.
White or yellow wax	...	...	...	3iiss.
Distilled water	...	...	...	3vj.
Gum arabic	...	...	...	3ij.
Powdered soap	...	...	...	3x.
Glycerin	...	...	...	3ij.
Bergamot and geranium oils, of each	...	...	...	3ss.

Rub the soap and the gum with 3iiss. of the water to a smooth fluid. Melt the wax and the spermaceti with the rest of the water in a water-bath, and mix with it the first compound (warmed) gradually, with vigorous stirring, keeping the wax mixture still hot. Then remove all from the water-bath, add the glycerin drop by drop, stirring assiduously all the time, and meanwhile incorporating the perfume. If the pomade has to be kept for a time, add benzoic acid 3ss. The pomade is much improved by keeping for a month before bottling, and rubbing it in a mortar twice a week. For black pomade use fine drop black, and for brown a little amber or sienna rubbed smooth with the glycerin. For the white kind white wax only must be used.

J. D. (167/13).—You will find particulars of the course of study required for the Registered Druggist examination in the Educational Number (August 15) of THE CHEMIST AND DRUGGIST.

Crinalis (40/41).—(1) *ROSEMARY AND CANTHARIDES HAIR-LOTION*:

Acetic acid	...	...	...	3ss.
Vinegar of cantharides	...	...	...	3ij.
Spirit of rosemary	...	...	...	3ij.
Essence of white rose	...	...	...	3i.
Water to	...	...	...	3viij.

Mix.

(2) *DIGESTIVE LIVER-MIXTURE*.—The following is from the new edition of "Pharmaceutical Formulas":

Liq. bismuthi	...	...	...	3ss.
Tr. nucis vomicæ	...	...	...	3ij.
Ætheris chlorici	...	...	...	3i.
Tr. capsici	...	...	...	mxvj.
Inf. calumbæ ad	...	...	...	3viij.

One tablespoonful for a dose two or three times a day. Nitro-muriatic and taraxacum tonics are popularly given in answer to such demands as yours, and are generally very successful in satisfying the customers' requirements.

Tonsor (42/47).—*ALMOND SHAVING-CREAM*.—The method of making this is as follows:

Lard	...	...	...	3xj.
Caustic potash	...	...	...	3xiiij.
Water	...	...	...	3ivss.

Dissolve the potash in the water and triturate the lard with the solution in a mortar. Allow to stand twelve hours and add—

Oil of bitter almonds	...	...	...	mx.
Rectified spirit	...	...	...	3ss.

Triturate until the mass becomes pearly in appearance, which can be assisted by the addition of the white of an egg.

Wax (10/18).—*PURIFYING SAMPLE OF FAT*.—The processes by which the smell and taste can be eliminated from the sample of hard fat are somewhat limited. As you have not tried filtering the melted fat through charcoal you should make the experiment. There seems also some hope from the employment of hydrogen peroxide, ozone, and sodium oxide.

H. B. (50/32).—There appears to be no question that *VIBRATORY MASSAGE* is of advantage in the treatment of several nervous ailments.

Coming Events.

Notices for insertion under this heading should be received by the Editor on Wednesday of each week.

Wednesday, September 30.

Pharmaceutical Society of Great Britain, 17 Bloomsbury Square, London, W.C. At 11 A.M. Council-meeting. At 3 P.M., opening of the session of the School of Pharmacy, and presentation of the Pereira medal. The inaugural address will be given by Mr. F. Harwood Lescher, F.C.S.

Tunbridge Wells Chemists' Assistants' Association, 50 Dudley Road, at 8.30. Annual supper. Tickets from the Hon. Secretary, 81 Calverley Road.

Thames Valley Chemists' Association, Nuthall's Banqueting Hall, Kingston-on-Thames. Social evening.

Thursday, October 1.

Association of Women Pharmacists, 17 Bloomsbury Square, London, W.C., at 8 P.M. Mr. James Cantlie, M.B., F.R.C.S., on "Some Tropical Diseases and their Treatment."

Chemists' and Druggists' Society of Ireland, 11 Waring Street, Belfast, at 8 P.M. Opening smoking-concert of the season.

Bradford Chemists' Association, Royal Hotel, Darley Street, at 9 P.M. Mr. F. W. Richardson on "Friendly Microbes."

Great Yarmouth Pharmaceutical Association, 156 King Street, at 8 P.M. Monthly meeting.

Minor Experiences.

On July 1, with many others, I attended at Galen Place. In due course I was sent to practical chemistry, and was told to do my qualitative analysis first, which I found to be a solution of ammonium tartrate. The quantitative work was to determine the strength of an approximately decinormal solution of potassium permanganate by means of pure ferrous ammonium sulphate and pure oxalic acid provided. This solution I found to contain 2.8 grams per litre.

DISPENSING.—The following prescriptions were given:

Bism. subnit.	...	...	...	...	aa. -ij.
P. frag. co.	...	...	...	...	...
Tr. card. co.	...	...	...	...	...
Ac. hydrocy. dil.	...	...	...	...	...
Inf. gent. co. ad	...	...	...	...	...

Sig.: ʒj. t.i.d. p.c.

Seidlitz powders, double strength. Mitte vj.

Salol, ... aa. gr. 2.

Naphthalin. ...

Mitte xij. Varnish.

Sig.: One three times a day a.c.

Calamine	...	...	...	...	4.5
Zinc oxide	...	...	...	...	3.5
Solution of lime	...	...	...	...	50
Olive oil to	...	...	...	...	100 c.c.

Ft. lin. Mitte ʒiv.

Sig.: Lin. to be used as directed.

Sol. hyd. biniodid. 1-500. Mitte ʒviij.

My intimation to attend a week later for the oral part arrived the following day.

MATERIA MEDICA.—This was the first subject with Mr. Farr. The following specimens were shown: Coca-leaves (and name constituents), cusso, a fresh specimen of a stramonium herb with flower, cocculus indicus, pimento, hemlock-fruit, anise-fruit, laurel-berries, cubebs, black pepper, croton-seeds, canella-bark, euonymus-bark, pomegranate (root) bark, *Cinchona succirubra* bark (assay of alkaloids), oak-bark, gelsemium-rhizome, aconite-root, marshmallow, and jalap-root (also to distinguish between jalap and Tampico resin, and method of obtaining resin from tubercule).

PHARMACY.—A long wait ensued before I went to Mr. Goldby. The first question was "What ointment-bases do you know?" Then the different properties of each base were inquired into. Strengths of the ointments of carbolic acid, aconitine, and belladonna, and the bases used. Preparation of ung. hydrarg. and ung. hydrarg. nit. (the changes occurring in the latter ointment), and ung. paraffin. Strength of morphine and carbolic acid in the pharmacopoeial lozenges. Preparation of tr. aurant. Strength of tr. belladon. Preparation of tr. cannab. indic. tr. rhei, and syr. sennæ. What is meant by pressure-maceration? In what sort of a vessel would the operation be carried out? Strength of the extracts and liquid extracts of nux vomica and belladonna? The method of preparing the last-named liquid extract. Strength of morphine suppositories. Preparation of glycerin

of pepsin. Strength and preparation of ext. cinchonæ liq. Preparation of pil. hydrarg. and emplastrum plumbi. The regulations for selling tr. belladonnæ and Easton's syrup.

PRESCRIPTION-READING followed, with Mr. Wyatt. Two calculations were done successfully—namely, 493 c.c. of a 5-per cent. solution of cocaine hydrochloride and 5 oz. of an ointment containing 3.5 per cent. of mercuric oxide. The directions of three prescriptions were given to translate into Latin and three prescriptions to put into full Latin. The following were included among the doses: Ac. hydrocyan. dil., aq. laurocerasi, chloroform., hydrarg. ioidid. rub., spt. æther., tr. iodi. Then came questions on massing iodine and hyd. ioidid. rub. into pills (separately, of course).

CHEMISTRY.—Professor Wynne asked what I had found in my solution on the first day. From the answer came questions on the production of tartaric acid and its properties. Why does it deposit from grape-juice (because alcohol is produced). I had to write equations for the production of tartaric acid. The acids containing phosphorus were next inquired into and their methods of production. The methods of procuring oxygen from the air (Brin's process and the liquid oxygen process). Properties of the carbohydrates and their action with Fehling's solution. I was next questioned in detail on the syphon.

BOTANY was my last subject. Five plants were given for recognition—aconite, bryony, male fern (the nature of the little oval bodies on the back of the fronds), fennel, and *Ruta graveolens*. While on the male fern I was asked about the reproduction and also the nature of the prothallus. What are sieve-tubes? What are they used for? What are stomata and lenticels? What are they used for? How are carbohydrates formed and stored up? I had two natural orders to recognise—*Liliacea* and *Compositæ*. A slide under the microscope proved to be a transverse section of a pine stem. What is the difference between a dicot. and a monocot.? Has a conifer got any cambium? What is the use of cambium? I had evidently satisfied the examiners on the whole, for after a minute or two I received the congratulations of the President, and my certificate the next day. N. E. H.

At the Counter.

"SIR,—I have heard you keep bees. Will you kindly make me ʒd. of honey for to mix up to make a throat-salve. Yours respectfully." This is guaranteed genuine Grimsby.

CURIOUS CURES.—A Norwich chemist confesses he has heard of fried mice for whooping-cough, catgut tied round the waist for piles, and a skein of red wool tied round the neck for nose-bleeding; but the following two cures, told by an apparently intelligent and fairly educated woman, cap them for sheer ignorance:

Cut a small portion of the hair from the nape of the neck of the patient, wrap in a piece of pig's "chitlings" or fresh meat, and give to a dog (it must be a male dog).

Catch a large fat spider, seal it up in an envelope without killing it, place it behind a hanging picture in the frame, and when the spider dies the whooping-cough will cease. Neither of the above remedies will be effectual if the fact of their employment is mentioned before the treatment is undertaken.

IN A MINING VILLAGE.—First a woman came in for a pennyworth of cotton-wool and lint, saying, "Ye see, my husband was working doon in the pit, building a wall, when a great muckle stane about a hundredweight fell on the top o' him and struck him on the ankle and made a big hole in it." Next a miner. "I wid like a dose of medicine. Ye see, I got my pay [pronounced 'pei'] on Saturday, an' I thoct I would hae a feed on the tap o't. So yesterday and Monday I ate four pund o' beef, and am no feeling richt the day." While, following, a girl asks, "Hae ye any sixpenny bottles o' scent?" "No, but I can give you six penny bottles of scent. It's fine to have a variety." "I'll tak' three o' them, an' if they're no guid I'll ca' your head aff." Then another miner. "Something for the bairn. It's aye greetin'." "How old is it?" "It's just four months." "And what are you feeding it on—milk?" "Oh, ay; he just gets the run o' the hoose." Yet again another miner admits that his child, a few weeks old, "Whiles gets a biscuit." A woman wants "a teething-pooder for a bairn a week auld." "Surely it has begun to take medicine early?" "Oh, ay; we're born wi' trouble."

Exchange Column—Bargains.

TERMS.

One halfpenny per word with name and address. One penny per word if we register the address and attach a number.
No Advertisement inserted for less than 6d.

FOR DISPOSAL.

APPARATUS.

GARDNER'S patent combined "Rapid" sifter and mixer with fly-wheel, for hand power, capacity 30 lb., cost £12 15s., in perfect order, take £7; 4 "Dustless" boxes for same, cost 25s. each, take 12s. 6d. each. SNOWDON, 185 South Croxted Road, Dulwich, S.E.

BOOKS AND PERIODICALS.

"B.P. 1898," as new; P.O. 5s. 6d. "RADIO," 80 Blythe Road, West Kensington.
FOR SALE.—Dr. Christison's (1884) "Edinburgh Dispensary"; what offers? MACCREATH, Chemist, 7 Aylestone Road, Leicester.

DENTAL.

MASSEY'S odd diatomic teeth; 3s. hundred. EDWARDS, 176 Upper Richmond Road, Putney.
BRANCH PRACTICE. iron dental chair, in excellent condition; price £3. Write MUSGRAVE, 30 Finsbury Pavement, London, E.C.

OPTICAL AND PHOTOGRAPHIC.

72 MICROSCOPE SLIDES, 1s. 3d. doz.; 6s. 6d. lot; exchange approved. LINTIN, 170 Freedom Road, Sheffield.
BUTCHER'S ever-ready acetylene generator, No. 2; perfect condition; cost 35s.; sell for £1. NALL, Chemist, Milnrow.
SIX Charts of the Eye, Raphael's, page 160, clean, new, 2s. each; 2 framed in oak, 6s. each. WARBURTON, Druggist, Farnworth, Bolton.
COMPLETE optical trial case, as new, original cost £12 12s.; what offers? transaction C. & D. Deposit System. "Focus" (193/1), Office of this Paper.
£15 worth first cost net of spectacles; gold-filled, etc.; assorted in good order; what offers? 1 only Kodak tank developer, 7 by 5. BROOKE-KELLY, Chemist, Enniscorthy.
X-RAY Apparatus.—Radiographers, dissolving partnership, offer complete outfit; £16 10s. for immediate sale; separate items at low valuation; purchaser instructed. Letters, "RADIO," 80 Blythe Road, West Kensington.
OPTICAL.—£12 trial-case, new 12 months ago, solid leather carrying case, perfect condition; 75 eyeglass and spectacle frames, latest patterns; 175 (+ -) lenses in case; 93 spectacle cases, retinoscope, screws, eyeglass chains; lot cost £27 4s. 7d. nett; £22 4s., carriage paid. "F. B.," 117 Northumberland Road, Old Trafford, Manchester.

PROPRIETARY ARTICLES.

OFFERS? 4 doz. Elgildo gold paint, 1s.; 4 doz. Sparklets, B. bulbs, 1s. 4d.; 4 doz. Pond's extract soap, 1s.; 1½ doz. Armour's shaving stick, 1s. BROOKE-KELLY, Chemist, Enniscorthy.

SHARES.

SHARES for Sale. See p. 92.

SHOP FITTINGS.

WHAT offers?—50s. O'Brien's check-till; new. BURNEIT, c/o Rossiter, Chemist, Tiverton.
SCALES, dispensing, brass, with chains, glass pan, as Maw's 1917, stamped; also not quite complete set stamped brass weights, new; 7s. 6d. all. "RADIO," 80 Blythe Road, West Kensington.

MISCELLANEOUS.

O'BRIEN'S check-till, 8½ guineas, good condition; "Modern Physician," 5 vols., new. 192/3, Office of this Paper.
HANDSOME brass 10-light electrolier with ornamental glass shades; cost, with wiring, £15; take £5. RANSFORD, 24 Sandgate Road, Folkestone.
25 MILLIGRAMS radium bromide, 700,000 units of activity; 40 guineas or nearest offer; 11 Sandow's concentrated embro, 2s. 9d. size, 15s. carriage paid. GAMLEN, Chemist, 223 York Road, West Hartlepool.
FOUR doz. 7½d. Keene's corn-cure, 18s.; 1½ doz. 7½d. pile-cure, 6s. 9d.; 1 doz. 1s. 1½d. Caskeens, 7s. 6d.; ½ doz. 1s. 1½d. Lungoids, 3s. 9d.; 1 doz. 7½d. Outem corn-cure, 4s.; 3 doz. 2 oz. Juvis, 12s.; 1 doz. 4-oz. Juvis, 8s.; Byford's "Gynaecology," revised edition, 363 illustrations, 15s., cheap; Cazeaux's "Obstetrics," well bound, as new, £1; model strong man, 24 in. high, perfect, 15s.; "Modern Physician," 5 vols., Dr. Wilson, £1, cost nearly double. HEATH, 86 Nehells Park Road, Birmingham.
TWO specie-jars, magnesia, handsome design, gilt-glass covers, height inclusive 29 in., 50s. each, with octagonal mahogany stands; 20 gross assorted colours, enamel-slide powder-boxes, lined pink, size 2½ in. by 1½ in., 30s. lot; Pfeiderer kneading and mixing machine, size 3 B.B., 45s.; Pindar's rotary pill-cutter, 24 5 grain, 44; Pindar's piping press, £1; spectacles and folders, about 15 dozen, retailing 4s. 6d. to 1s., the lot at 5s. dozen; all packed free, carriage forward. JONES, Chemist, Burnham, Bucks.
"MODERN PHYSICIAN," 5 vols., 20s., cost 37s. 6d.; Bentley's "Botany," 4th edition, 2s. 6d., cost 15s.; Wills' "Materia Medica," 7th edition, 2s. 6d., cost 10s. 6d.; 2 Ruddock's "Stepping-stones to Homœopathy," 1s. 6d., cost 2s.; 2½ doz. Ovols, 1s. 12s.; ½ doz. Bynol, 2s. 6d. size 2s.; 8 doz. 2d. compressed Johnson's sanitary towels, 8s.; 12 doz. 6½d. H.C. Turkey sponges, 38s., sample dozen 3s. 3d.; personal weighing-machine, with measuring rod, on stand 20 in. high. HARDMAN, Central Pharmacy, St. Anne's-on-the-Sea.

WANTED.

TWO shop chairs. 14 England Lane, N.W.
A GOOD skull, with teeth. PASSMORE, 176 Upper Richmond Road, Putney.
"CHEMIST AND DRUGGIST," August 10, 1907. "S. B." (20/15), Office of this Paper.
PATENTS, clean, good sellers; good prices given. KING, 6 St. Paul's Road, Blackpool.
OINTMENT jars, mortars, and pestles; outside lamp. "F. W. B.," 138 Preston Drove, Brighton.
INCE'S "Latin Grammar" and "Elementary Dispensing Practice"; latest editions. WOOD, 151 Market Street, Hyde.
KELLY'S latest "Directory of Chemists and Druggists." Lowest price to H. W. KEMP, Willow Bank Works, Horncastle.
MINOR, Major, Chemists' books.—Send prepaid for valuation; cash offers per return. GOWER, Bookseller, Waterloo, Liverpool.
FITTINGS for shop, about 16 by 14, good second-hand; also recess labelled rounds, must be cheap. TOMSON, 42 Albion Road, Handsworth, Staffs.

ADDRESSES WANTED.

ADDRESS of Samuel Hadskis or Samuel Hadskis Dawson, a miniature photographer. HENDERSON, Chemist, Keswick.
J. C. MEYERICK, chemist, formerly of 35 Cromac Square, Belfast; W. Craig, chemist, late of 84 London Road, Glasgow; Lerblich (? late proprietor Wardour Drug-stores, Wardour Street, W.O. 187/20, Office of this Paper.

